

**FINAL ENVIRONMENTAL ASSESSMENT  
AND FINDING OF NO SIGNIFICANT IMPACT**

**2025 MASTER PLAN IMPROVEMENTS  
KAHULUI COMMERCIAL HARBOR**

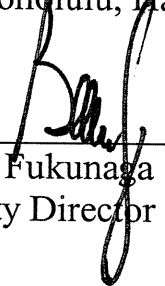
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Proposing Agency:

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DEPARTMENT OF TRANSPORTATION  
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This document is prepared pursuant to Chapter 343, HRS and  
the Administrative Rules, Title 11, Chapter 200 of the Hawaii Department of Health.





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### KAHULUI COMMERCIAL HARBOR

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## **SECTION 1.0**

### **INTRODUCTION**

This Environmental Assessment (EA) is prepared for the proposed short-term improvements at the Kahului Commercial Harbor pursuant to Chapter 343, Hawaii Revised Statutes (HRS) and the rules and regulations established by the Department of Health, Administrative Rules, Title 11, Chapter 200. The purpose of the EA is to disclose the environmental, economic and technical consequences of the proposed project (improvements) to the public officials responsible for approving the action. Typically, for those actions which do not have a significant effect, a Finding of No Significant Impact (FONSI) can be determined. For those actions which will have a significant effect, an Environmental Impact Statement must be completed. The proposing agency is the Department of Transportation, Harbors Division (DOT-HAR) and the accepting authority is the Department of Transportation. This EA is prepared because the proposed project will use State of Hawaii land and funds, and will be used for the application of other permits, as necessary.

#### **1.1 SUMMARY OF THE PREFERRED PROJECT**

The DOT-HAR has recently completed the Kahului Commercial Harbor 2025 Master Plan<sup>1</sup> that will serve as a guide for development, maintenance and enhancement of the harbor. The recommendations in the 2025 Master Plan are to ensure the efficient, safe, accessible and economical operations of Kahului Commercial Harbor. At this point in time, the DOT-HAR would like to undertake those improvements which will be necessary within the next ten (10) years. These projects, as shown on Figure 1, are located on the harbor's east side and include the:

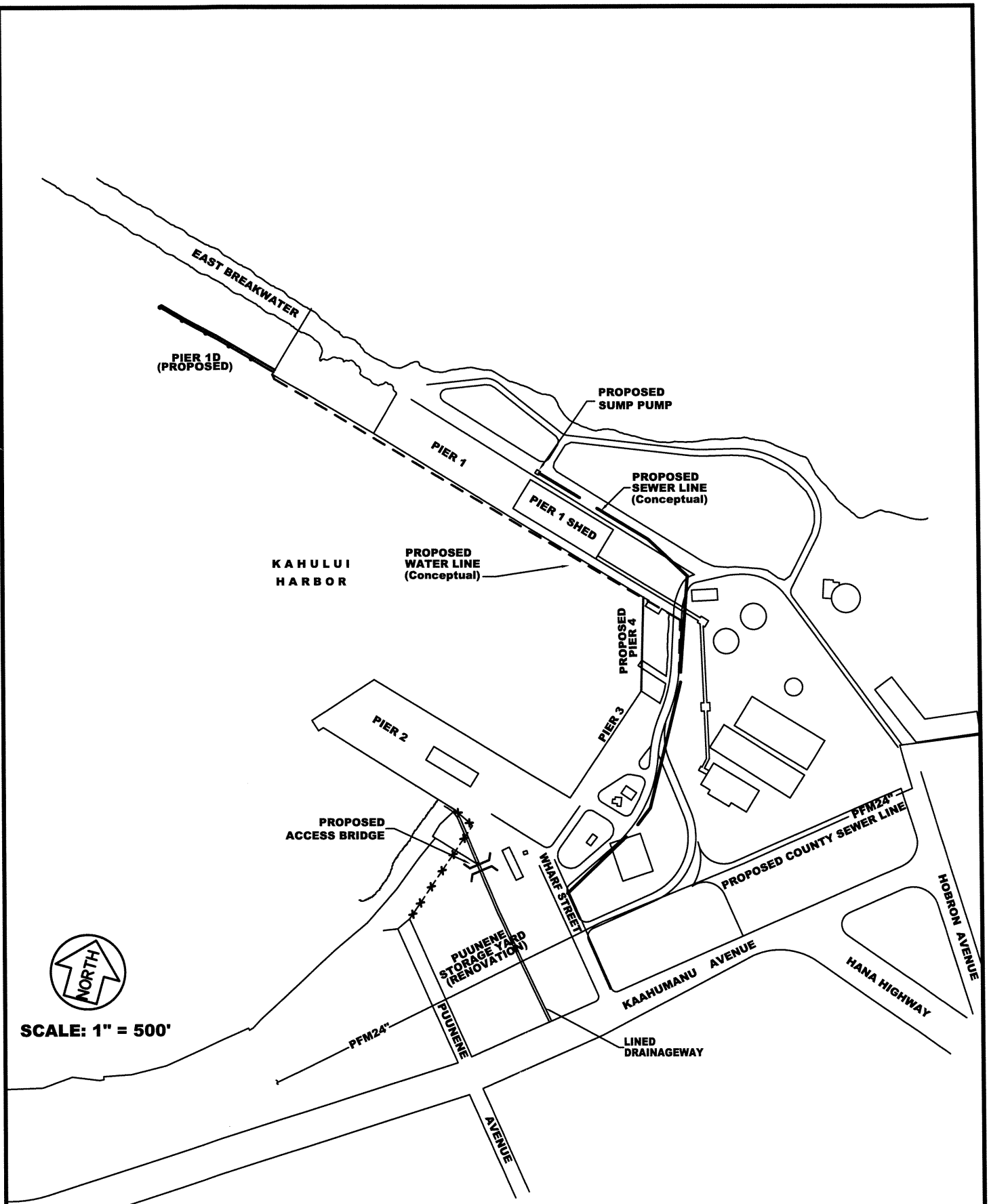
- Pier 1 extension (Pier 1D);
- Pier 1 comfort stations and sewer line (exempt project);
- Pier 1 waterline;
- Pier 3 expansion (including dredging between Piers 1 and 2);
- new Pier 4, which may be constructed in phases as funds becomes available; and
- structural pavement, access bridge, and utilities at "Puunene Yard."

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<sup>1</sup> The Kahului Commercial Harbor 2025 Master Plan is incorporated by reference.







**DRAFT ENVIRONMENTAL ASSESSMENT  
KAHULUI COMMERCIAL HARBOR IMPROVEMENTS**

Prepared by : Edward K. Noda and Associates, Inc.

**PROPOSED IMPROVEMENTS  
PREFERRED ALTERNATIVE**

**FIGURE 1**

**JANUARY, 2005**



In considering the projects necessary within the short-term, this EA considers the cumulative impacts of those projects. “Cumulative impacts” are defined in HAR 11-200-2 as environmental impacts resulting from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. In determining what is reasonably foreseeable, the DOT has determined that the following intermediate- and long-range projects identified in the 2025 Master Plan are not reasonably foreseeable and hence are not covered by this EA:

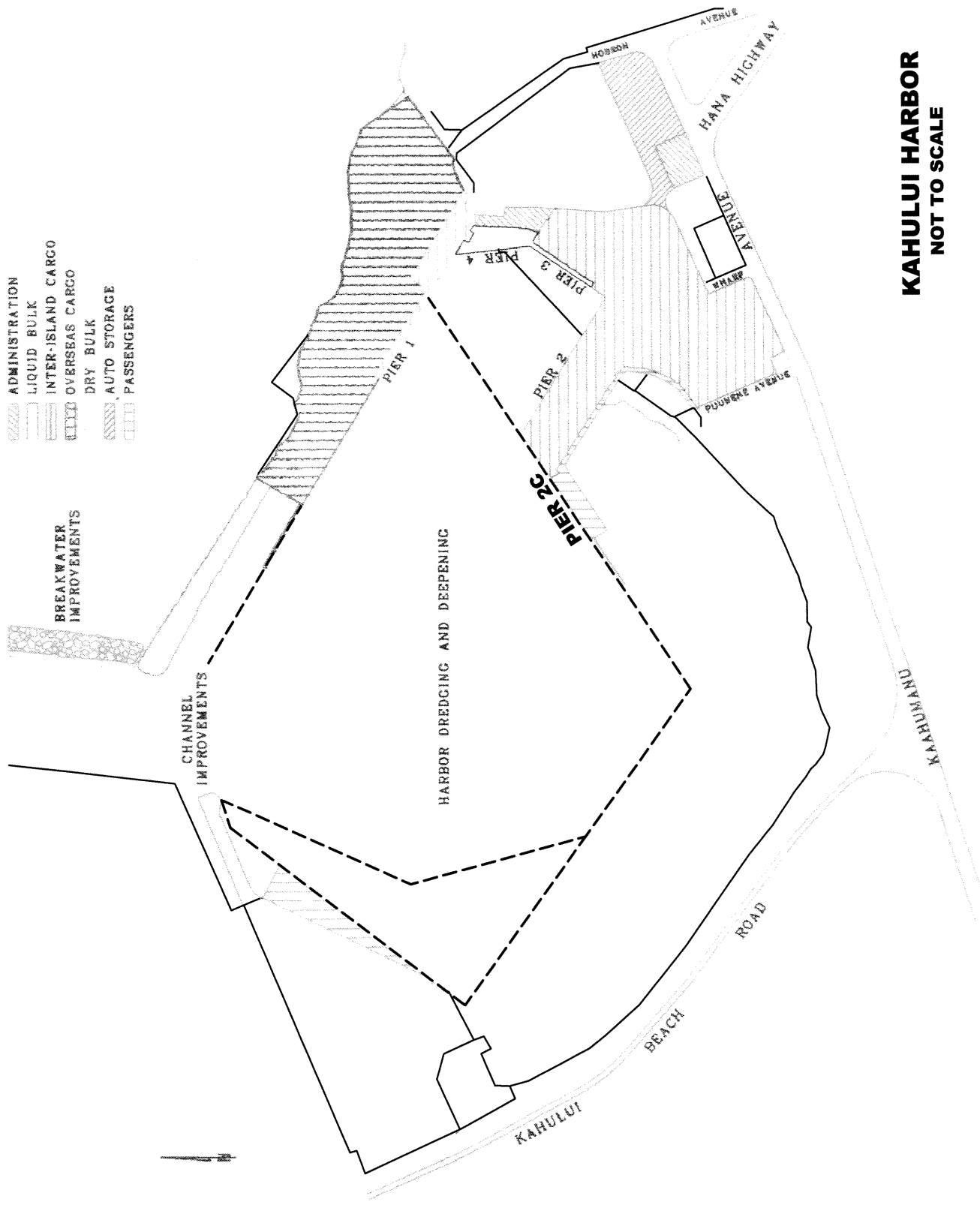
- construction of the Pier 2C;
- construction of a new Pier 5 and associated dredging for the berth; and
- harbor turning basin dredging and deepening of the existing channel, construction of improvements for the breakwater, and improvements to the main channel.

The entire 2025 Master Plan is shown on Figure 2. These projects are not reasonably foreseeable and are not covered by this EA for the following reasons.

- Pier 2C: The construction of Pier 2C will not be completed under this Environmental Assessment in response to comments from the canoe clubs and paddlers that use Kahului Commercial Harbor for practices and regattas.
- Pier 5: The Pier 5 improvements, breakwater and channel improvements are on indefinite hold. The proposed Pier 5 improvements will not be constructed within the planning period due to the DOT-HAR budgetary constraints and the results of the U.S. Army Corps of Engineers’ *Wave Climate and Wave Response, 2025 Plan, Kahului, Harbor*, 2002. The results of this wave study indicate that the use of Pier 5 by large vessels will create operational problems, and the Pier 5 improvements will encounter significant wave surge conditions.
- Turning basin dredging and deepening, construction of improvements for the breakwater, and improvements to the main channel: These projects would have been completed by the U.S. Army Corps of Engineers but will not be completed at this time as these projects are associated with the construction of Pier 5.

If and when these intermediate- and long-range projects become ripe for decision-making, an environmental analysis will be completed to determine if any environmental documentation will be needed in accordance with State of Hawaii and NEPA rules and regulations.





**KAHULUI HARBOR**  
NOT TO SCALE



In the preparation of this EA, the comments from the pre-assessment consultation, the minutes of the public meetings during the 2025 Master Plan process, and comments on previous Environmental Assessments were reviewed. In addition, information was gathered from field visits, meetings with DOT-HAR staff, and interviews with various community members and organizations. The list of agencies, organizations and individuals which participated in the 2025 Master Plan process and in the preconsultation process are listed in Section 8.1. Upon receipt of comments from the canoe associations the DOT-HAR held several meetings with the canoe associations regarding the proposed harbor improvements, in late 2004. The written comments received during the pre-assessment consultation are included in Appendix A, and the written comments received on the Draft Environmental Assessment and the corresponding response letters are included in Appendix E.

## 1.2 INCORPORATED PROJECTS

The following projects have been recently completed or are reasonably foreseeable at Kahului Harbor during this Environmental Assessment, and their impacts have been analyzed in other environmental documents. These projects are included to assess the cumulative impacts of the proposed project and these projects.

### 1.2.1 Sewerline and comfort stations

The sewerline and comfort stations project which is intended to allow for the closure of the Harbor's cesspools, were included in the Draft Environmental Assessment. This project is required to meet a Federal ban on cesspools. In reviewing this project DOT-HAR determined that it is in an exempt class (Exemption Class 2). Therefore, the DOT-HAR decided to grant an exemption under HRS 343 and HAR 11-200. A copy of the exemption is included in Appendix F.

### 1.2.2 Mooring Dolphin Pier 1C.

The Pier 1C Mooring Dolphin is an improvement project which is covered under a separate Environmental Assessment, dated March 2004. The project involved the construction of a mooring dolphin and catwalk superstructure connecting to Pier 1C. The project proponent is Matson Navigation Company. The mooring dolphin and catwalk superstructure will be used to provide sufficient mooring capability to extend the useful area of Pier 1C for container ships and other large vessels. The mooring will provide much-needed space and meet safety concerns for the proper securing of moored vessels. The findings and determination of the environmental review process for this project indicated that there would be no significant adverse impacts to the environment and a Finding of No Significant Impact was issued.

### 1.2.3 Hawaii Superferry Operations

The DOT-HAR has reviewed the requirements and needs associated with harbor access and use of pier facilities by the Hawaii Superferry Inc., and based on the review and discussions with the Hawaii Superferry regarding the use of the harbor facilities, the DOT-HAR granted an exemption on February 23, 2005. A copy of the exemption is included in Appendix F. The exemption allows the Hawaii Superferry operation to utilize a barge (floating platform) and ramp system to provide a transition platform between the Hawaii Superferry vessel and the pier. The barge will be configured with a boarding ramp to provide a connection between the vessel and the barge; and a separate ramp between the barge and pier for safe vehicle loading and off-loading.

The Hawaii Superferry is a private entity which plans to run a “fast-ferry” operation between the major Hawaiian Islands. The vessels have a rated service speed of 35 knots or approximately 40 miles per hour. The Public Utilities Commission (PUC) has approved Hawaii Superferry’s Plan to start service in early 2007. This approved plan is to service Hawaii, Kauai, Maui and Oahu, with one stop each per day. The future plans are to increase service to each port, however, no schedule for this increase has been provided. The planned arrival time for Hawaii Superferry at Kahului Harbor is 11:00 a.m with a departure time at 12:00 noon. The vessel has a maximum load of 900 passengers. The number of vehicles it carries depends on the types and sizes of vehicles to be boarded, for example, it has a maximum capacity of 282 typical passenger cars, or 20 large trucks/buses and 65 cars. Larger vehicles can be accommodated but it will further reduce the number of vehicles that can be loaded onto the vessel. Currently, the Hawaii Superferry anticipates an average number of vehicles to be carried to be in the range of 100 to 115 and would be a mix of cars and trucks/buses.

Minor improvements on or adjacent to the pier associated with the Hawaii Superferry operation may include, but are not limited to, utility service (water, electricity, lighting, etc.), security fencing, pavement striping, the placement of boarding gangway ramps, and the installation of tents at inspection points or customer waiting areas. These minor improvements are limited in scale and scope, and represent the type of changes introduced from time-to-time at various harbor areas to accommodate operational activities at the harbor.

The comments received during the Draft Environmental Assessment phase of this process on the Hawaii Superferry included the potential concern on increasing non-native (alien) species introduction to Maui, wastewater disposal and the potential impact on the whales. The Hawaii Superferry’s use of Kahului Harbor is included in this document to analyze the cumulative impacts with the proposed improvements, and is not part of the



proposed project. As part of the Hawaii Superferry operational plan, they have been working with the State of Hawaii, Department of Agriculture on operational procedures which will minimize the potential to spread non-native species through its operations. The Hawaii Superferry has developed a Whale Avoidance Policy which was approved on May 12, 2005 by the Hawaiian Islands Humpback Whale National Marine Sanctuary Advisory Council (Whale SAC) and is presented in Appendix F.

### 1.3 SUMMARY OF MAJOR IMPACTS AND MITIGATION

The proposed improvements will not have significant impacts on the environment. However, mitigation measures are proposed during construction that will lessen the construction-related impacts. These measures include:

- silt curtains to maintain water quality outside of the construction area;
- Best Management Practices, to the maximum extent practical, to minimize runoff into the ocean and connecting tributaries;
- use of Glassphalt, if available, in conformance with Section 103D-407, HRS;
- to the extent practical, all fabrication will be performed on fast land;
- incorporation of sustainable building guidelines, as practical, including the use of water saving and energy conservation devices, and the use of xerophagic native plants;
- fugitive dust controls pursuant to Department of Health Administrative Rules;
- should human remains, prehistoric or historic artifacts, or cultural features be encountered in the course of excavations during construction, the construction works would be halted in that area and the State of Hawaii, Historic Preservation Division (SHPD)-Maui office notified;
- in the properties that form TMK 3-7-08:1, 3, inland portions of 4, and 6 inland of Pier 2 on the west side of Wharf Street, a qualified archaeological monitor should be present during all ground altering activities which will impact below the fill deposits;
- continue tenant-user meetings and communiques of activities in the Harbor; and
- testing and appropriate disposal of the dredged material.

#### 1.4 LIST OF PERMITS AND APPROVALS

The DOT-HAR is exempt from all County permitting requirements, including the Special Management Area permit, pursuant to the Hawaii Revised Statutes Chapter 266. The contractor must submit a plan for construction waste disposal and recycling. Other non-County permits include the following:

- Section 10 permit, Section 401 permit and/or Section 404 permit from the U.S. Army Corps of Engineers and State of Hawaii, Department of Health, Clean Water Branch, as appropriate;
- Coastal Zone Management Federal Consistency Certification issued by the State of Hawaii, Office of Planning as part of the U.S. Army Corps of Engineers permit; and
- Notice of Intent (NOI) for the NPDES general permit must be submitted to the Department of Health, Clean Water Branch, 30 days before the commencement of activities involving stormwater discharge from the construction site, dewatering effluent discharge, and/or discharge of hydrotesting water. Amendments to HAR, Chapter 11-55, requires a copy of the NOI or NPDES permit application to be submitted to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD).

## **SECTION 2.0**

### **DESCRIPTION OF PROPERTY**

#### **2.1 LOCATION**

The Kahului Commercial Harbor lies on Kahului Bay, and is located on the northern shore of the isthmus connecting East and West Maui (see Figure 3). The Harbor serves as Maui's only commercial harbor and is bordered by Maui's largest town, Kahului, the commercial center of the island. The Harbor consists of two distinct operational areas: the east area, that serves as the main commercial operational area, and the west area that serves as a recreational and stockpile area. The east area is approximately bordered by the east breakwater, Hobron Avenue, Kaahumanu Avenue and Puunene Avenue. The west area is bordered by the west breakwater and Kahului Beach Road (See Figure 4).

Kahului Commercial Harbor is the busiest, deep-draft, neighbor island, commercial harbor, and is one of ten (10) State-managed commercial harbors in Hawaii. The DOT-HAR is responsible for the control, management, use and regulation of commercial harbors and their improvement as stated under Chapter 266, HRS.

#### **2.2 HISTORY**

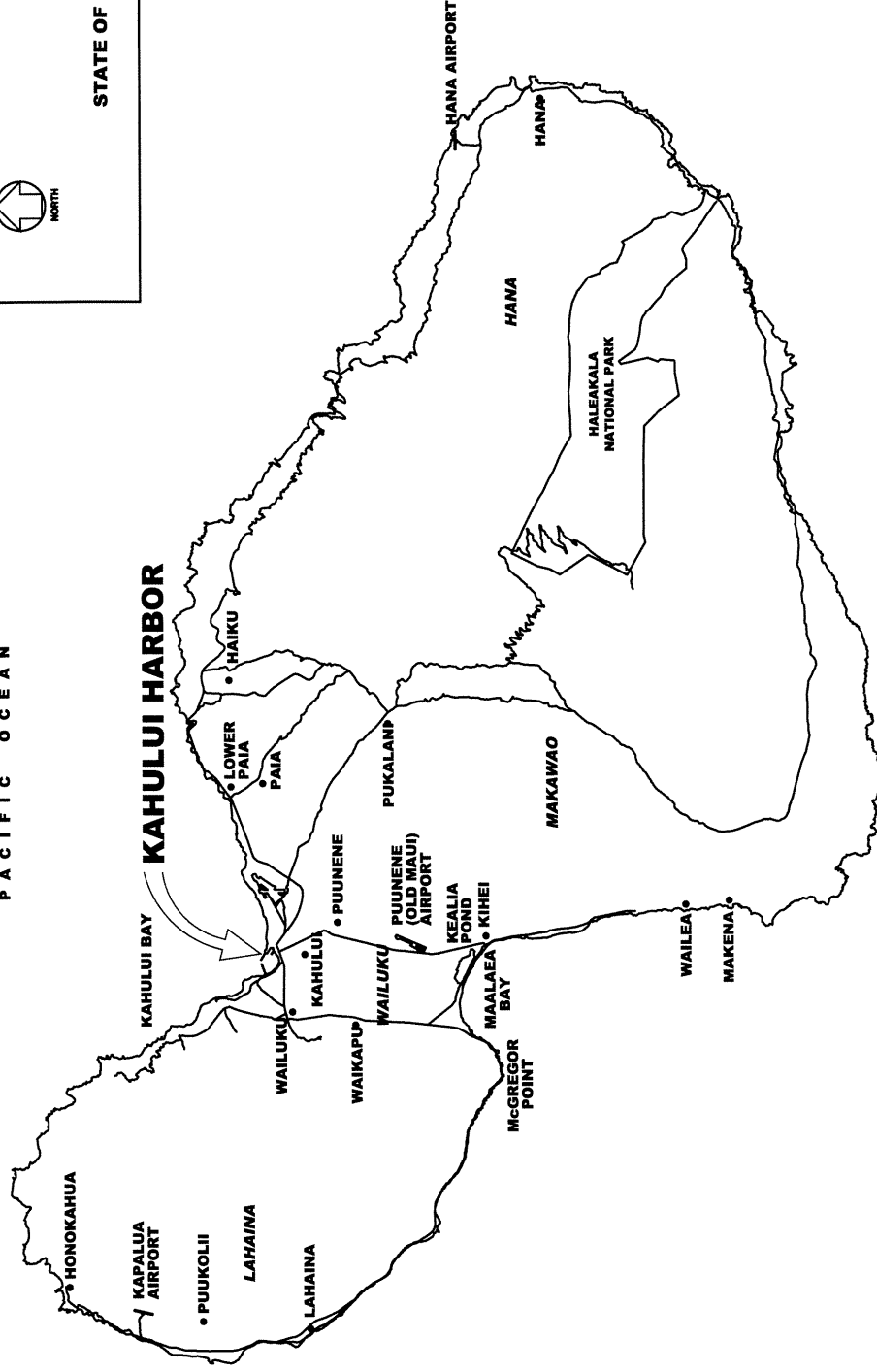
Early development at Kahului Bay started in 1863 with the construction of the first western building, a warehouse near the beach. In 1879, to facilitate the loading and unloading of goods and passengers, the first small landing was constructed in Kahului Bay. After the Bubonic Plague of 1900, the rebuilding of Kahului town coincided with the evolution of Kahului Bay into a full-scale commercial harbor. The development of the Harbor began in earnest under the leadership of Henry Baldwin. During this time, the railroad and harbor depended on each other to provide service to the merchants and the sugar cane plantations. By 1910, the harbor had an 1,800-foot breakwater on the east side, a 40-foot tall lighthouse, a new 200-foot pile-and-timber pier, "Claudine Wharf," and the turning basin had been dredged.

The development of Kahului Harbor has continued to meet Maui's maritime demand. Pier 1 was initially 500 feet in length and was constructed between 1921 and 1924, along with a pier shed that was 374 feet long. Subsequent construction lengthened Pier 1 to 929 feet. Currently (2003), Pier 1C has been constructed, and Pier 1 increased to a length of 1,658 feet. The first 627 feet of Pier 2 was constructed in 1927 at the location of the old "Claudine Wharf," and extended in 1929 to 894 feet.

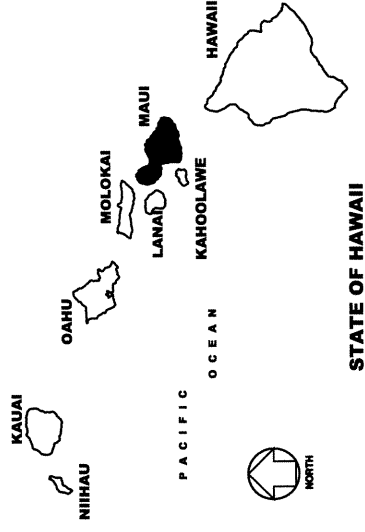




PACIFIC OCEAN



**ISLAND OF MAUI  
NOT TO SCALE**



STATE OF HAWAII

**DRAFT ENVIRONMENTAL ASSESSMENT  
KAHULUI COMMERCIAL HARBOR IMPROVEMENTS**  
Prepared by : Edward K. Noda and Associates, Inc.

**LOCATION MAP**  
**FIGURE 3**  
**JANUARY, 2005**







AERIAL PHOTO 09-2003  
AIR SURVEY HAWAII

DRAFT ENVIRONMENTAL ASSESSMENT  
KAHULUI COMMERCIAL HARBOR IMPROVEMENTS

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VICINITY MAP

FIGURE 4

JANUARY, 2005

By the 1930s, the turning basin was dredged to a depth of 35 feet with a maximum width of 1,455 feet. Currently, the harbor basin is 2,050 feet wide and 2,400 feet long with a depth of 35 feet. The entrance channel is 660 feet wide and has a depth of 40 feet. In 1931, the west breakwater was completed. A detailed description of the history of Kahului and the Harbor is provided in Appendix B.

To evaluate the existing and future needs at the harbor and to achieve its goals, the DOT-HAR undertook the “*2010 Master Plan for Kahului Harbor*.” This Master Plan was reviewed and updated in November 1994, and published as the “*Master Plan Update for Kahului Harbor*.” Typically, the DOT-HAR targets a five-year schedule in reviewing and updating its Master Plans. Therefore, the current 2025 Master Plan serves as another update to the Master Plan, and also provides a long-range guide for the development of Kahului Commercial Harbor.

## 2.3 LAND OWNERSHIP

The land and water area which comprises Kahului Commercial Harbor is owned by the State of Hawaii. The control and management of the land and water have been given to the DOT-HAR by various Governor’s Executive Orders.

## 2.4 EXISTING USES AND FACILITIES

The east side of the Harbor currently encompasses approximately 50 acres of land. It is the operational portion of the Harbor, including three major berthing structures with storage areas, warehouses, harbor offices, and tenant buildings. All of the commercial maritime activities occur on the east side. The water depths range from 18 feet (near Pier 3) to a project depth of 35 feet in the turning basin, except for the area between Pier 1 and Pier 3 which has depths less than 18 feet. Figure 5 shows the existing facilities on the east side.

There are three major berthing<sup>2</sup> structures, Pier 1, Pier 2 and Pier 3. Pier 1 consists of a 1,658-foot long pier, including the recent 300-foot long extension known as Pier 1C, and a shed which is approximately 374 feet long and with a footprint of approximately 43,975 square feet. Pier 1 is the main pier for the large container vessels, such as those used by Matson Navigation

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<sup>2</sup> The berths are planned and designed for common use to the extent possible and as stated in the Kahului Commercial Harbor 2025 Master Plan, “*Berthing within the State’s commercial harbors is generally not permanently assigned. Vessels entering the port are directed to their berths according to the shoreside facilities required and the availability of such berths.*”







AERIAL PHOTO 09-2003  
AIR SURVEY HAWAII

**EAST SIDE FACILITIES**

DRAFT ENVIRONMENTAL ASSESSMENT  
KAHULUI COMMERCIAL HARBOR IMPROVEMENTS

**FIGURE 5**

JANUARY, 2005

Prepared by: Edward K. Noda and Associates, Inc.

Company for their overseas container operations, and by both domestic and foreign cruise ship operations. Other users of Pier 1 include Maui Electric Company's coal ship, Maui Land and Pineapple Company's tin plate ship, and Matson's sugar/molasses ship (the Moku Pahu). With the completion of the current extension, two ships will be permitted to berth simultaneously at Pier 1. There is a 15.9 acre paved container storage area adjacent to Pier 1.

Pier 2, 894-feet long, is used primarily by Young Brothers for their interisland cargo business. Other users include Horizon Lines overseas cargo operation and the Gas Company's bulk cargo shipments.

Pier 3, 500-feet long, is used by ships which transport liquid and dry bulk cargo. Primary liquid bulk users of Pier 3 are the petroleum companies, such as Tesoro and Chevron, and Maui Electric Company. The major dry bulk users include Hawaiian Cement and Ameron Hawaii.

Other uses of the Harbor include circulation roadways, DOT-HAR office, a maintenance building and a spill response boat house and storage yards.

Existing maritime demand for Kahului Harbor is shown on Table 2-1, with the schedule changes expected in 2005 shown on Table 2-2. The cargo tonnage passing through Kahului Harbor increased to 1,818,433 short tons into Maui, and 761,889 short tons exported during the 2001 fiscal year. During fiscal year 2002, the harbor accommodated 150,119 cruise ship passengers and 2,475,090 short tons of cargo, with 1,762,864 tons imported into Maui and 712,226 tons exported from Maui. In 2003, the total cargo volume increased to 2,544,311 short tons, an increase of 2.5 percent from 2002, but still less than the 2001 volume.

## 2.5 SURROUNDING LAND USES

The Harbor is located in an urbanized, industrial setting and surrounded by the towns of Kahului and Wailuku, the centers of Maui's commerce, light industry, and government. In addition, approximately 37,600 residents live in Kahului and Wailuku, approximately 37 percent of the total population on Maui<sup>3</sup>.

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<sup>3</sup> U.S. Census, 2000, State of Hawaii Data Book 2001, Department of Business, Economic Development and Tourism.

**TABLE 2-1**  
**SHIP SCHEDULE AND BERTH ASSIGNMENTS FOR KAHULUI HARBOR**  
(July 2003 to June 2004)

| <b>PIER</b> | <b>OPERATION</b>         | <b>SHIP<br/>OVERALL<br/>LENGTH (feet)</b> | <b>NUMBER<br/>OF DAYS<br/>PER CALL</b> | <b>NUMBER<br/>OF CALLS<br/>PER YEAR</b> |
|-------------|--------------------------|---|--|---|
| 1A          | Fuel                     | 230-328                                   | 1.0                                    | 62                                      |
| 1A          | Coal                     | 557                                       | 4.0                                    | 2                                       |
| 1A          | Sugar                    | 685                                       | 1.5                                    | 7                                       |
| 1A/1B       | Foreign Cruise           | 554-965                                   | 0.5                                    | 49                                      |
| 1A/1B       | Domestic Cruise          | 853                                       | 2.0                                    | 1                                       |
| 1B          | Tin Plate                | 494-555                                   | 1.0                                    | 2                                       |
| 1B/1C       | Overseas Container RO/RO | 790-826                                   | 0.5                                    | 27                                      |
| 1C          | General Freight          | 140-340                                   | 1.0                                    | 6                                       |
| 1C          | Sand                     | 242                                       | 0.5                                    | 19                                      |
| 1C          | Overseas Container       | 350                                       | 0.5                                    | 109                                     |
| 1C          | Overseas Container RO/RO | 345                                       | 0.5                                    | 52                                      |
| 1           | Tugboats                 | 75-150                                    | 0.5                                    | 246                                     |
| 2A          | Interisland Container    | 226-310                                   | 0.5                                    | 204                                     |
| 2A          | Cement                   | 184-333                                   | 0.5                                    | 32                                      |
| 2A          | Propane                  | 230-384                                   | 0.5                                    | 19                                      |
| 2B          | Fertilizer               | 330                                       | 1.5                                    | 1                                       |
| 2B          | General Freight          | 286                                       | 1.0                                    | 16                                      |
| 2           | Tugboats                 | 80-134                                    | 0.5                                    | 332                                     |
| 3           | Fuel                     | 230-328                                   | 0.5                                    | 82                                      |
| 3           | Scrapmetal               | 340                                       | 3.0                                    | 2                                       |
| 3           | Sand                     | 242                                       | 0.5                                    | 42                                      |
| 3           | Fertilizer               | 330                                       | 1.0                                    | 2                                       |
| 3           | General Freight          | 250-350                                   | 0.5                                    | 13                                      |
| 3           | Tugboats                 | 75-134                                    | 0.5                                    | 124                                     |



**TABLE 2-2**  
**CHANGES IN SHIP SCHEDULE AND BERTH ASSIGNMENTS FOR 2005**  
**(As of December 2004)**

| <b>PIER</b> | <b>OPERATION</b>         | <b>SHIP OVERALL<br/>LENGTH (feet)</b> | <b>NUMBER<br/>OF DAYS<br/>PER CALL</b> | <b>NUMBER<br/>OF CALLS<br/>PER YEAR</b> |
|-------------|--------------------------|---------------------------------------|--|---|
| 1A/1B       | Foreign Cruise           | 554-960                               | 0.5                                    | 22                                      |
| 1A/1B       | Domestic Cruise          | 853                                   | 1.5                                    | 52                                      |
| 1B/1C       | Overseas Container RO/RO | 790-826                               | 0.5                                    | 52                                      |
| 1C          | Pasha (March 2005)       | 580                                   | unknown at<br>this time                | 27                                      |
| 2           | Young Brothers           | 226-310                               | 0.5                                    | 340                                     |
| 2           | Hawaii Superferry (2007) | 340                                   | 0.05                                   | 365                                     |
| 3           | Fuel                     | 230 -321<br>(Sause Brothers)          | unknown at<br>this time                | 27                                      |

Bordering the Harbor on the east is the Maui Electric Company power plant, various petroleum storage facilities, and commercial ventures. The main access through this area is Hobron Avenue. To the south and along Kaahumanu Avenue, there are commercial facilities, including two large shopping complexes, Maui Mall and the Kaahumanu Shopping Center. Access to the Harbor from Kaahumanu Avenue is through Wharf Street. Land use to the west of Puunene Avenue include various commercial activities, canoe *hale* and hotels. In addition, Hoaloha Beach, which is partially located on DOT-HAR property, neighbors Pier 2 to the west and is used for various recreational activities. Along Kahului Beach Road and south of the turning basin is the Harbor Lights residential condominium.

The State Land Use designations for the area immediately surrounding the Harbor is Urban. The Kanaha Pond Wildlife Sanctuary is a Conservation area and is about ½ mile east of the Harbor. The Harbor is within the Wailuku-Kahului Community Plan.

## SECTION 3.0

### DESCRIPTION OF THE PROPOSED PROJECT

#### 3.1 BACKGROUND

The “*Kahului Commercial Harbor 2025 Master Plan*, ” provides a guide to the development at the Harbor based on the knowledge and experience of the users of the facilities, their anticipation of future trends, and the input of other non-commercial users of the Harbor itself. Also, pursuant to Hawaii Administrative Rules 19-41-4, *Delegation of authority*. “*The chief, harbors division, district managers, and the harbor masters are the designated representatives of the department and of its director and as such are delegated full authority to administer the rules of the department and to establish procedures necessary for the efficient and safe operation of the harbors within their respective jurisdictions.*”

#### 3.2 PURPOSE AND NEED

The proposed projects will ensure efficient, safe, accessible and economical harbor operations to meet existing and forecast maritime demands. The projects recommended by the 2025 Master Plan were planned to meet the following objectives:

- plan the proper development of Kahului Commercial Harbor<sup>4</sup>, thereby facilitating maritime shipments of the essential commodities required by Maui County;
- optimize the utilization of land and water resources committed to marine cargo and passenger operations in an economically responsible manner;
- provide terminals, other harbor resources, and access to these facilities in locations within Kahului Bay and other locations in a manner that best relates to and serves Maui in an efficient, safe and secure manner; and

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<sup>4</sup> As defined in the Hawaii Revised Statutes Chapter 266-1, a commercial harbor “*means a harbor or off-shore mooring facility which is primarily for the movement of commercial cargo, passenger and fishing vessels entering, leaving or traveling within the State, and facilities and supporting services for loading, off-loading, and handling of cargo, passengers and vessels.*” Similarly, under Hawaii Administrative Rule 19-41-2 a State commercial harbor “*means a harbor under the jurisdiction of the department which has been designated for trade and other commercial activity....*”

- minimize the impact on environmental quality and recreational opportunities contiguous with the Harbor.

### 3.3 FORECAST

The forecast analysis in the 2025 Master Plan is based on a number of statistical studies which establishes a method of quantifying the requirements for future cargo facilities. The two facilities which have storage area requirement projections are the i) container yards; and ii) berthing space. High correlations between the annual weight of all cargo shipped to and from Maui and the per-capita Gross State Product were established and used to project the 2025 estimates of cargo tonnage.

The analysis of the berthing space requirements was based on the overall ship length and the frequency of calls. Table 3-1 presents the forecast ship arrivals for 2025 and overall ship length. As of January 1, 2004, cruise ship bookings for 2004 listed 89 visits by various ships ranging from 592 feet to 963 feet in length. In the Master Plan, the 2025 berthing analysis<sup>5</sup> results were as follows.

- Sugar, coal, tinplate, sand, lumber, scrap metal, liquid fertilizer and overseas container operations are assigned to Pier 1. These combined operations result in a 2025 berth utilization factor of 0.62.
- Piers 2A and 2B are dominated by inter-island cargo and liquefied petroleum gas (propane) operations with a 2025 berthing utilization factor of 0.74.
- Pier 2C (which has been removed from consideration) would have served as an overflow pier, and would have a 2025 berth utilization factor of 0.71.
- Pier 3 would be used for cement and petroleum product shipments would have a 2025 berth utilization factor of 1.0.

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<sup>5</sup> The berthing analysis uses assumptions regarding where vessels will likely berth, which may not reflect actual conditions, as schedules and operational issues may move vessels to different berths. As stated earlier, the berths are planned and designed as common use berths to the extent possible. In the berthing analysis, a berth utilization factor of 0.5 (for unscheduled calls) and 0.6 (for scheduled calls) is considers the berth to be fully utilized (the berth is approximately filled 50% of the time). The 0.5 berth utilization factor accounts for the difficulty for vessels to maintain an accurate schedule, due to rough seas, delays at other ports, etc.

- Pier 4 would be an alternate berth for liquid bulk cargo and other users which would have a 2025 berth utilization factor of 0.95.
- Pier 5 (which is on indefinite hold as explained above) was planned to be used for cruise ships and had a projected 2025 berth utilization factor of 0.82.

**TABLE 3-1**  
**FORECAST 2025 SHIP SCHEDULE FOR KAHULUI HARBOR**

| <b>OPERATION</b>                  | <b>SHIP<br/>OVERALL<br/>LENGTH (feet)</b> | <b>NUMBER OF<br/>DAYS PER<br/>CALL</b> | <b>NUMBER OF<br/>CALLS PER<br/>YEAR</b> |
|-----------------------------------|---|--|---|
| Coal                              | 557                                       | 3.0                                    | 26                                      |
| Sugar                             | 685                                       | 3.0                                    | 52                                      |
| Foreign Cruise                    | 950 <sup>a</sup>                          | 1.5                                    | 27                                      |
| Domestic Cruise                   | 950 <sup>a</sup>                          | 1.5                                    | 260                                     |
| Tin Plate                         | 557                                       | 1.0                                    | 16                                      |
| Lumber                            | 242                                       | 0.5                                    | 26                                      |
| Fertilizer                        | 340                                       | 1.0                                    | 11                                      |
| Sand                              | 250                                       | 0.5                                    | 68                                      |
| Overseas Container                | 350                                       | 0.5                                    | 344                                     |
| Overseas Container RO/RO          | 350                                       | 0.5                                    | 214                                     |
| Interisland Cargo                 | 350                                       | 0.5                                    | 526                                     |
| Cement                            | 184                                       | 0.5                                    | 78                                      |
| Propane                           | 230                                       | 0.5                                    | 78                                      |
| Scrap Metal                       | 250                                       | 1.0                                    | 11                                      |
| Petroleum                         | 340                                       | 0.5                                    | 365                                     |
| Petroleum                         | 340                                       | 1.0                                    | 26                                      |
| Inter-island Ferry <sup>(b)</sup> | 350                                       | 1.0                                    | 365                                     |
| Various tugs                      | 73 to 80                                  | various                                | 1,522                                   |

a. Note: as of 2002, the overall ship length of the largest cruise ship berthing at Kahului was 965 feet.

b. The ferry considered in the Master Plan is a generic interisland ferry. The “Superferry” is a specific entity which has plans to start service in 2007.



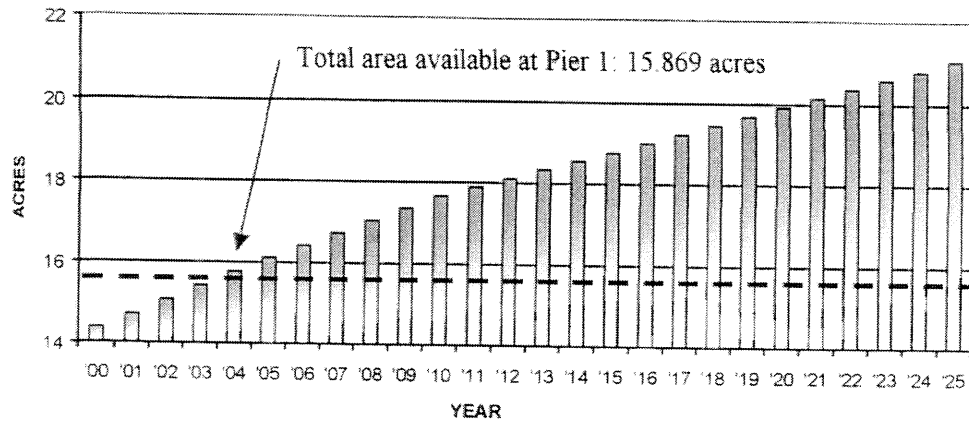
It should be noted that although assumptions were made as to the use of the piers by specific types of vessels, the berths at Kahului Commercial Harbor and throughout the state are generally common use. Therefore, the piers are planned and designed to accommodate various vessel types, to the extent practical, to provide the maximum flexibility to the Harbor Master in meeting the maritime demand.

However, due to the revisions in the Master Plan, a new berthing analysis was performed with the following berthing assumptions.

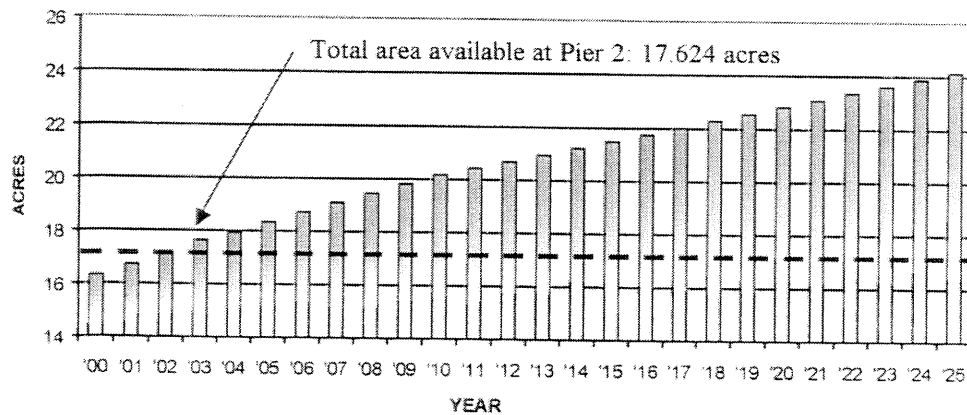
- Sugar, coal, tinplate, sand, lumber, scrap metal, liquid fertilizer, cruise, and overseas container operations are assigned to Pier 1. These combined operations result in a 2025 berth utilization factor of 1.19.
- Pier 2 is dominated by inter-island cargo and liquefied petroleum gas (propane) operations. In addition, Pier 2 will be used for vessels awaiting permanent berths, tugs and other uses. The analysis results in a 2025 berthing utilization factor of 1.01.
- Pier 3 would be used for cement and petroleum product shipments which results in a 2025 berth utilization factor of 1.00.
- Pier 4 would be for berthing liquid bulk cargo vessels, other cargo vessels, inter/intra-island ferries, tugs, and other users. The analysis results show a 2025 berth utilization factor of 2.07.

In addition, the Hawaii Administrative Rules, Section 18-42-21, *Priorities for berths and moorings*, states the following “*Designated facilities for small craft and smaller commercial vessels in other state commercial harbors. A) First priority: Public Utilities Commission licensed operators. B) Second priority: commercial fishing boats. C) Third priority: charter or cruise boats. D) Fourth priority: other commercial boats. E) Fifth priority: recreational small craft.*”

For the container yards, the analysis was based on a standardized container size of twenty feet in length and is reported in Twenty-Foot-Equivalent-Units (TEU). Therefore, a twenty-foot long container would be represented as one TEU, a twenty-four foot container would be equivalent to 1.2 TEU, a forty-foot container would be equivalent to 2 TEUs, and so on. Therefore, the amount of TEUs can be translated to the projected storage volumes and areas. Currently, the total container storage facility at Pier 1 is 15.9 acres and at Pier 2 is 17.6 acres. The storage yard projections are shown on the following graphs. Also, additional overflow space of 3.7 acres is located at the corner of Hobron Avenue and Kaahumanu Avenue, and is usually used for automobile storage. The spatial requirements for the projected cargo volumes were determined by the application of commonly used port planning formulae.



*Pier 1 Overseas Cargo Yard Acreage Requirement Projections*



*Pier 2 Inter-Island Cargo Yard Acreage Requirement Projections*

The forecast overseas cargo volumes require container yard space of 21 acres by the year 2025, and the projected interisland cargo volumes will require over 24 acres by 2025. Based on the projected cargo volumes and the existing size of the cargo yards, the Pier 1 container yard will be at capacity by year 2005 and the Pier 2 container yard is near capacity. The additional container capacity provided by the overflow space would delay the need for additional container storage space until year 2008.

### 3.4 PROPOSED PROJECT DESCRIPTION

The proposed project only includes those short-term projects recommended in the DOT-HAR Kahului Commercial Harbor 2025 Master Plan. The projects will maintain Harbor operations based on the existing and forecast maritime demands for cargo and passengers. Other projects contained in the 2025 Master Plan are not reasonably foreseeable due to their long-range nature and other

factors, and as a result these long-range projects are not yet ripe for decision making. Therefore, in the future as these projects become ripe for decision making, environmental analyses will be performed prior to design in order to determine what, if any, additional environmental documentation is required. In addition, the components of the Master Plan are independent actions and do not represent a larger undertaking or a commitment to a larger project. Also, the individual projects are not a precedent to a larger project and the individual actions are not similar.

As stated earlier, the proposed short-term projects include the:

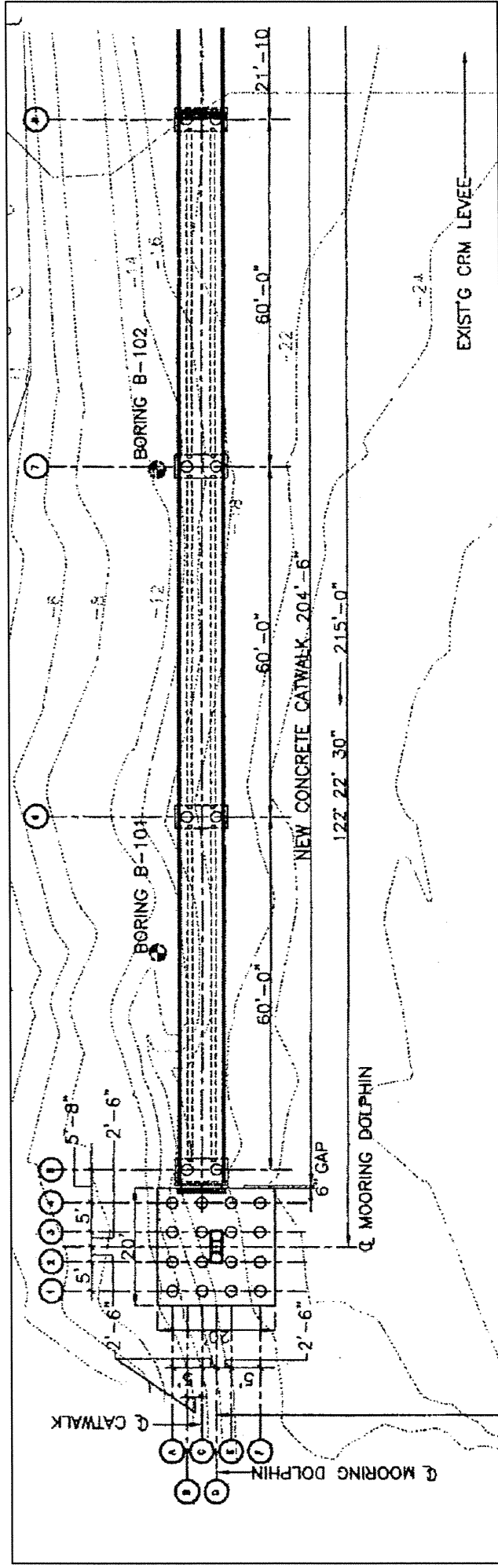
- Pier 1 extension (Pier 1D);
- Pier 1 comfort stations and sewer line (exempt project);
- Pier 1 waterline;
- Pier 3 expansion, including the dredging between Piers 1 and 2;
- new Pier 4, may be constructed in phases as funds become available; and
- structural pavement, access bridge and utilities at “Puunene Yard.”

A detailed description of the project alternatives is provided in the following section. All of the developments will use Glassphalt paving, if available, in conformance with Section 103D-407, HRS. In addition, as practical, the design will incorporate sustainable building guidelines, including low-energy fixtures, water saving devices and landscaping with xerophagic native plants.

### 3.5 ALTERNATIVES

Pier 1D. **Preferred Alternative.** This pier would be an extension of Pier 1 toward the west and consists of a series of mooring/breasting dolphins which would stretch about 500 feet from the existing end of Pier 1C. The dolphins would be spaced at approximately 100 feet intervals with catwalks/ramps connecting each dolphin. Typically for the envisioned vessel displacement, the dolphin consists of a mooring bollard supported by a grouping of concrete piles. The catwalks/ramps would be about six feet wide and would provide access to the mooring bollards by small tractors and personnel. It is envisioned that the catwalks would be pile supported between the mooring/breasting dolphins and a “typical” layout for the catwalk and breasting dolphin is shown in Figure 6.





NOT TO SCALE

## REFERENCE 9

DRAFT ENVIRONMENTAL ASSESSMENT  
KAHULUI COMMERCIAL HARBOR IMPROVEMENTS

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## MOORING DOLPHIN AND CATWALK (TYPICAL)

FIGURE 6  
JANUARY, 2005



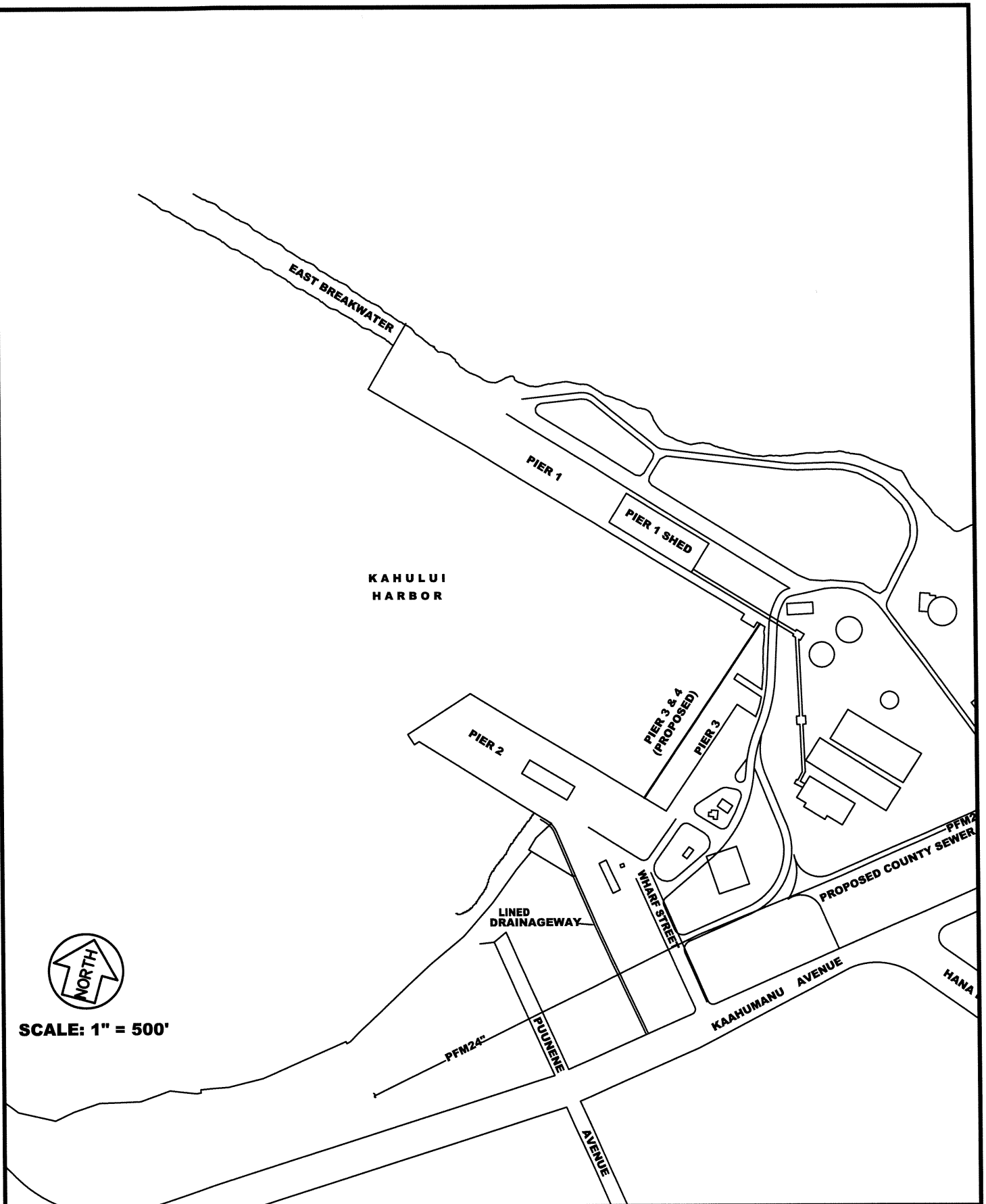
Piers 3 and 4. **Linear Alternative (including Pier 3 expansion).** This alternative would provide approximately 800 feet of linear pier area by expanding the Pier 3 apron seaward by about 60 feet and constructing a new linear Pier 4 (see Figure 7). In addition, new fuel lines for off-loading of bulk liquid and water lines for fire-fighting will be installed. Furthermore, the spacing of the fuel ports should be optimized for the existing and future vessels. It should be noted that the crane reach on the existing fuel barge is about 5 feet. The extension of Pier 3 and the new Pier 4 would be supported on piles and/or bulkheads with fill. Currently, typical pier design would have pile spacings from 8 to 12 feet in the longitudinal direction and from 20 to 25 feet in the lateral direction. The pile-spacing will be determined in the design process and is dependent on various factors, such as but not limited to, soil conditions, pier loads and pile size. The design of Pier 4 would provide for off-loading of bulk liquids, fuel ports, intra/inter-island ferries, the roll-on/roll-off needs of vessels that may use the pier, tugs and other users. In addition to the berthing structures, minor improvements and facilities including, but not limited to, ramps, bollards, utilities, pavement striping, lighting, will be constructed to allow for the use of the berth by the various users. Typically, rip-rap protection will be laid under the pier to provide erosion protection. Due to funding constraints, the initial construction phase would be smaller than the proposed Pier 4 development described above, and may utilize various mooring components such as mooring/breasting dolphins, linear pier, finger pier or other types of moorings between the existing Pier 1 and Pier 3.

Pier 4. **Preferred Alternative.** This alternative recommended in the 2025 Master Plan would provide a new pier structure from the existing north corner of Pier 3 to Pier 1 at about a 30-degree angle (see Figure 1). Currently, similar piers are supported on piles and/or with bulkheads with fill. If pile supports are used, it would have typical pile spacings of about 8 to 12 feet in the longitudinal direction and approximately 20 to 25 feet in the lateral direction. It will include rip-rap under the pier to provide erosion protection. As previously stated, the pile-spacing will be determined in the design process and is dependent on various factors, such as but not limited to, soil conditions, pier loads and pile size. The elevation of the new pier would match the existing Pier 3 elevation. The design of Pier 4 would provide for off-loading of bulk liquids, fuel ports, the roll-on/roll-off needs of vessels, intra/inter-island ferries, tugs and other users. In addition to the berthing structures, minor improvements and facilities including, but not limited to, ramps, bollards, utilities, pavement striping, lighting, will be constructed to allow for the use of the berth by the various users.

Pier 4 and associated improvements may be constructed in phases with the ultimate configuration to be either the Linear Pier 3 and 4 alternative or the Preferred







# **PROPOSED IMPROVEMENTS OTHER ALTERNATIVES**

## **DRAFT ENVIRONMENTAL ASSESSMENT KAHULUI COMMERCIAL HARBOR IMPROVEMENTS**

**FIGURE 7**

Prepared by : Edward K. Noda and Associates, Inc.

**JANUARY, 2005**



Pier 4 alternative. Similarly, the design for this Pier includes minor improvements to facilitate the loading and unloading of goods, cargo and passengers, such as fuel ports, and roll-on/roll-off needs for vessels which may use the pier. Due to funding constraints, the initial construction phase would be smaller than the proposed Pier 4 development described above, and may utilize various mooring components such as mooring/breasting dolphins, linear pier, finger pier or other types of moorings between the existing Pier 1 and Pier 3. As with other Kahului Commercial Harbor piers, the pier will be constructed on bulkheads with fill, and/or on piles depending on cost and substrate type. As part of the construction, the area fronting Piers 3 and 4 will be dredged to a depth of 30 to 35 feet<sup>6</sup>. The area to be dredged is outside of the “Federal project limits.” The dredge material may be used as fill material for the construction of Pier 4, if suitable.

#### Pier 1 Comfort Stations, Waterline and Sewer Line.

**Preferred Alternative.** This alternative would expand and renovate one of the Pier 1 shed comfort stations, construct an upgraded waterline from Ala Luina Street to the end of Pier 1, and construct a sewer line to connect both Pier 1 comfort stations to the existing County sewer system on Wharf Street. A schematic of the waterline and sewer line alignment is shown on Figure 1. The exact location and depth of the new sewer line would be determined during the design. Currently, the existing comfort stations are connected to cesspools. In accordance with State of Hawaii, Department of Health (DOH) rules and the U.S. Environmental Protection Agency (EPA) regulations, all existing large capacity cesspools, defined as those having the capacity to serve 20 or more persons per day, must be phased out by April 5, 2005 (EPA Underground Injection Control Class V Rule (promulgated on December 7, 1999)).

#### Puunene Storage Yard (Structural pavement, access bridge and utilities at “Puunene Yard”)

**Preferred Alternative.** This alternative includes the demolition of the existing pavement and construction of structural pavement, drainage infrastructure, fire infrastructure, and a new access bridge connecting the “Puunene Yard” to Pier 2. A portion of the pavement, about 200 feet on the north end of the Yard and the bridge, would be designed for high-capacity loads for the container lifts, such as the Hyster 920 or Cat 925.

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<sup>6</sup> Under the Oil Pollution Act of 1990 all bulk carriers must use double hulled barges by 2015. The current depths at Pier 3 and the proposed Pier 4 will not accommodate these double-hulled vessels. Currently, the Sause Brothers doubled-hulled petroleum barge (“Hilo Bay”) has a maximum draft of 29 feet but usually operates with a draft of 24 feet.

The pavement for the remaining portion of the Yard would be designed to store containers on chassis and automobiles. The infrastructure improvements would include drainage lines, fire protection lines and electrical ducts. A bridge would be constructed over the existing open drainage way to allow transport of vehicles and persons from Pier 2 to the yard.

### 3.5.1 PROJECT FUNDING

The proposed project will be financed solely with State of Hawaii funds, either through Harbor Special Funds or from the General Fund. Typically, the DOT-Harbors Division funds their operating and capital improvement expenses through the Harbors Special Fund, which is derived from fees collected from the commercial harbor users. At this point in time, the cost to construct the above alternatives for the proposed project are shown on Table 3-2.

**TABLE 3-2  
ESTIMATED COST OF PROPOSED IMPROVEMENTS**

| <b>PROJECT ALTERNATIVE</b>                   | <b>ESTIMATED COST</b> |
|--|-----------------------|
| Pier 1D                                      | \$ 1,000,000          |
| Pier 3 and 4 Linear                          | \$ 39,000,000         |
| Pier 4 Angled                                | \$ 26,000,000         |
| Pier 1 Comfort Station, Waterline, Sewerline | \$ 3,000,000          |
| Puunene Storage Yard Improvements            | \$ 4,000,000          |

### 3.6 SECOND KAHULUI HARBOR ALTERNATIVE

The U.S. Army Corps of Engineers performed a study for a second commercial harbor facility on Maui in 1995 titled the “*Maui Second Commercial Harbor, Navigation Study*.” The study identified six alternatives and concluded that the second harbor would not have an adequate benefit-to-cost (B/C) ratio to be justified. In addition, the construction of a second harbor will take decades to complete and will have significant environmental impacts. In fact, the study concluded; “*Based on the July 1990 biological opinion, a proposed commercial harbor development in west Maui is*

*likely to result in a jeopardy opinion<sup>7</sup> from NMFS [National Marine Fisheries Service].”* Therefore, a second harbor is not considered a reasonable and feasible alternative and no further analysis will be conducted in this environmental assessment. In addition, the second harbor alternative does not meet the purpose of the project, as:

- it does not facilitate [in the short-term] maritime shipments of the essential commodities required by Maui County;
- it does not optimize the utilization of land and water resources committed to marine cargo and passenger operations in an economically responsible manner; and
- it does not minimize the impact on environmental quality and recreational opportunities contiguous with the Harbor.

The computed benefit-to-cost (b/c) analysis results are shown in Table 3-3 and include the impact of a 23-day and 39-day closure of the existing Kahului Commercial Harbor.

**TABLE 3-3  
BENEFIT-TO-COST RESULTS FOR SECOND MAUI HARBOR**

| <b>SITE</b>                  | <b>B/C WITH<br/>23-DAY<br/>CLOSURE</b> | <b>B/C WITH<br/>39-DAY<br/>CLOSURE</b> |
|------------------------------|--|--|
| Hata Bay Breakwater Harbor   | 0.08                                   | 0.16                                   |
| Maalaea Pier                 | 0.38                                   | 0.50                                   |
| Ukumehame Pier               | 0.50                                   | 0.71                                   |
| Olowalu Pier                 | 0.50                                   | 0.71                                   |
| Olowalu Dock & Turning Basin | 0.39                                   | 0.56                                   |
| Olowalu Dredged Harbor       | 0.27                                   | 0.38                                   |

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<sup>7</sup> A jeopardy opinion means that the project will jeopardize the continued existence of an endangered species.

### 3.7 NO-ACTION ALTERNATIVE

The No-Action Alternative is a required alternative under HRS 343 that needs to be analyzed in the Environmental Assessment. The No-Action Alternative provides that the Harbor will have no new facilities within the short-term. However, the forecast growth of shipping traffic, cargo tonnage and passengers will still increase even if no improvements are constructed. Under this alternative, there will be no new piers or major improvements to the infrastructure within the Harbor and the forecast vessel traffic will be accommodated with the existing facilities. It is predicted that the no-action alternative would cause significant overflow of existing facilities which will produce significant delays in the loading and unloading of cargo and passengers. The ships awaiting berthing areas would have to moor offshore or wait at other ports until a space becomes available. These inefficiencies will add to the cost of goods transported into and out of Maui. In addition, the offshore moorings and the congestion could increase the risk of transporting goods and people to Maui. In addition, the wastewater system will not be changed and DOT will be in violation of Hawaii Department of Health's and the U.S. Environmental Protection Agency's (EPA) rules and regulations, and will be subject to fines and penalties.

**SECTION 4.0**  
**DESCRIPTION OF THE AFFECTED ENVIRONMENT,**  
**POTENTIAL ENVIRONMENTAL IMPACTS**  
**AND MITIGATION MEASURES**

4.1 CLIMATE

4.1.1 EXISTING CONDITIONS

The climate in the Kahului area is characterized by an equable temperature regime, marked seasonal variation in rainfall, persistent surface winds from the northeast quadrant and the rarity of severe storms. The range of temperatures between August, the warmest month, and January, the coldest month, is 79.2 °F to 71.5 °F.

Rainfall is normally relatively light and occurs mostly during the wet season from November through April. Annual rainfall is about 20 inches. Humidity in the Kahului area is usually moderate to high throughout the year.

Northeasterly trade winds dominate the wind pattern at Kahului Harbor and provide excellent ventilation for the area. The trade wind flow is most prevalent during the dry season, while variable winds occur primarily during the wet season. However, trade winds occur more than 50 percent of the time during the wet season.

The normal trade winds, accentuated by the funneling effect of Haleakala and the West Maui Mountains, may attain speeds of up to 40 to 45 miles per hour (mph). Occasional strong southerly (Kona) winds occur with the passage of storms during the winter months.

4.1.2 ALTERNATIVE ANALYSIS

The proposed project alternatives and No-action alternative will have no impact to Maui's climate.

4.2 LAND USE

4.2.1 EXISTING CONDITIONS

The majority of land within the Harbor's environs is designated Urban by the State Land Use Commission (LUC), with the Kanaha Pond Wildlife Sanctuary being designated

as Conservation. The Kanaha Pond Wildlife Sanctuary is located about one-half (½) mile east of the Harbor and is owned by the State of Hawaii, Department of Transportation, Airports Division and managed by the State of Hawaii, Department of Land and Natural Resources (DLNR).

The Harbor is located in an urbanized area and surrounded by Kahului town and is designated in the Wailuku-Kahului Community Plan and Zoning (WKCP) for Heavy Industrial use. The land uses immediately surrounding the Harbor include commercial and light industrial land uses. On the southern border of the Harbor, there is a residential condominium and two motels.

#### 4.2.2 ALTERNATIVE ANALYSIS

The alternatives, including the No-action alternative will not require a change in land use or zoning, and therefore, there will be no impacts on land use and zoning. The DOT-HAR is exempt from the SMA and other County of Maui permitting processes.

### 4.3 AIR QUALITY

#### 4.3.1 EXISTING CONDITIONS

The air quality of a given location is a function of both local meteorology and the amounts of air pollutants emitted from sources in the area. Present air quality in the Kahului area is affected by vehicular emissions, industrial and agricultural activities, and natural processes. The latest emissions inventory for the Island of Maui was conducted in 1980 by the State of Hawaii, Department of Health.

In the vicinity of Kahului Harbor, agriculture continues to be the major source of particulate matter emissions, and the level has increased by about 25 percent since 1980<sup>8</sup>. Sulfur oxides and nitrogen oxides emissions are primarily generated by electric power plants. Motor vehicles and the agriculture industry are the major sources of carbon monoxide and hydrocarbon emissions.

Significant industrial sources located within a few miles of Kahului Harbor include: Puunene Sugar Mill, located about two miles to the southeast; and Kahului Power Plant, neighboring the harbor to the east.

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<sup>8</sup> *Final Environmental Impact Statement, Kahului Airport Improvements*, Department of Transportation, Airports Division and Federal Aviation Administration, 1990



The North West Cruise Ship Association (NWCA)<sup>9</sup> signed a Memorandum of Understanding (October 2002) with the State of Hawaii for wastewater management, solid waste and hazardous waste management and air emissions. For air emissions, NWCA agrees “... *to limit visible emissions, excluding condensed water vapor, as follows: ships will not exceed 20% opacity for periods of time exceeding 6 minutes in any 60 minute period.....*”, except for certain circumstances. In addition, NWCA ships will have opacity-metering and recording capability, and will continue to bunker their ships with fuel that has a sulfur content of less than 2.8% by weight.

#### 4.3.2 ALTERNATIVE ANALYSIS

The alternatives will have the same impacts as that of the No-action alternative as the forecast demand will occur with or without the proposed project. Therefore, the proposed improvements will have an insignificant impact on air quality at the Harbor and its environs. The impacts associated with the existing Harbor will remain and the No-Action alternative will have no new impacts.

#### 4.3.3 SHORT-TERM CONSTRUCTION IMPACTS

There will be short-term air quality impacts due to construction activities for these proposed improvements. Such impacts would be direct and indirect and emanate from two potential sources: fugitive dust from vehicle movement or soil excavation; and exhaust emissions from on-site construction equipment.

Fugitive dust emissions may arise from grading and dirt-moving activities within the project sites. The emission rate for fugitive dust is nearly impossible to estimate accurately because of its elusive nature and because the potential for its generation varies greatly depending upon: the type of soil at the construction site; the amount and type of dirt-disturbing activity taking place; the moisture content of exposed soil in work areas; and the wind speed. The State of Hawaii's Air Pollution Control Regulations require that visible emissions of fugitive dust from construction activity be essentially nil. Adherence to those regulations as recommended will serve to mitigate any potentially significant short-term fugitive dust air quality impacts to a level below the level of significance.

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<sup>9</sup> NWCA member lines include Carnival, Celebrity, Crystal, Holland America, Norwegian, Princess, Radisson Seven Seas, Royal Caribbean, and World Explorer. Recently, the NWCA informed Governor Linda Lingle, that NWCA will be transitioning out of the MOU as of December 31, 2005, due to the enactment of Act 217.

On-site construction equipment (both mobile and stationary) will also emit some air pollutants in the form of engine exhaust. The larger equipment are usually diesel-powered. Nitrogen dioxide emissions from diesel engines can be relatively high compared to gasoline-powered equipment, but the ambient air quality standard for nitrogen dioxide is set on an annual basis and is not likely to be violated by short-term construction equipment emissions. Carbon monoxide emissions from diesel-powered equipment, on the other hand, are very low.

Slow-moving construction vehicles traveling on roadways leading to and from the project site could obstruct the normal flow of traffic to such an extent that overall vehicular emissions are increased, but this impact can be mitigated by moving heavy construction equipment during periods of low traffic volume. Likewise, the schedules of commuting construction workers can be adjusted to avoid peak hours in the project vicinity. Thus, the potential short-term air quality impacts from project construction can be mitigated to a level below the level of significance.

#### 4.3.4 MITIGATION MEASURES - CONSTRUCTION IMPACTS

Although the short-term construction impacts are insignificant, under the State of Hawaii, Air Pollution Control Regulations, visible emissions of fugitive dust from construction activities at the property line are prohibited. Thus, an effective dust control plan for the project construction phase will be essential. Construction activities must comply with provisions of Chapter 11-60.1 of the State of Hawaii Administrative Rules, Section 11-60.1-33, on Fugitive Dust. Adequate fugitive dust control can be accomplished by the following measures, as necessary:

- focusing on minimizing the amount of dust generating materials and activities, centralizing material transfer points and onsite vehicular traffic routes, and locating potentially dusty equipment in areas of the least impact;
- providing an adequate water source at the site, prior to startup of construction activities;
- control of dust from shoulders, project entrances, and access roads;
- providing adequate dust control measures during weekends, after hours, and prior to daily startup of construction activities;
- use of a frequent watering program to prevent bare-dirt surfaces from becoming significant dust generators;

- limiting the area that can be disturbed at any given time;
- application of chemical soil stabilizers or mulching;
- construction of wind screens;
- requirements that all open-bodied trucks be covered when transporting dirt or dust producing materials;
- road cleaning or tire washing, as appropriate; and/or
- the paving of parking areas and the establishment of landscaping early in the construction process to limit areas of possible dust production.

#### 4.4 NOISE

##### 4.4.1. EXISTING CONDITIONS

The Harbor typically is a high ambient noise environment, with operations occurring 24-hours a day and 7-days a week. The Harbor operations include heavy vehicle traffic by large vehicles, and the loading and unloading operations that use cranes, lifts and other mechanical equipment contribute to the existing noise levels. In addition, the land uses within the Kahului Harbor environs include the most industrialized portions of Kahului, and therefore, the area has a high ambient noise level.

##### 4.4.2. ALTERNATIVE ANALYSIS

All of the alternatives, including the No-action alternative, will not have a significant impact on noise characteristics in the harbor and its environs.

##### 4.4.3 SHORT-TERM CONSTRUCTION IMPACTS

There will be short-term noise impacts due to construction activities for these proposed improvements; however, due to the short duration, the impacts will be insignificant.

## 4.5 SOCIO-ECONOMIC IMPACTS

### 4.5.1 EXISTING CONDITIONS

Kahului Harbor is the only commercial harbor on the Island of Maui, and therefore all sea cargo flows through the Harbor. The 2001 estimated population of Maui County is 131,662<sup>10</sup>. The Department of Business and Economic Development and Tourism forecasts uses a range of annual growth rates of 0.8 to 2.0 percent to develop various scenarios for the population growth for the County. The major industries for Maui County are tourism and agriculture.

Hawaii's key industries are dependent on ocean transportation. The major utilities, petroleum industry and the construction industries depend almost entirely on the shipping industry. The agriculture industry depends on ocean shipping for importing and exporting of items. The harbor also includes facilities for the loading, unloading and temporary storage of cargo.

In fiscal year 2000, 2,529,897 short tons of cargo were unloaded and loaded at the Harbor. This shipping tonnage increased to 2,580,322 in fiscal year 2001, a two percent increase. Incoming cargo tonnage is about two-thirds of the total tonnage handled at Kahului Harbor. The majority of the tonnage consists mainly of: containerized cargo, such as personnel effects, food items and building supplies; automobiles; petroleum products; and cement. The outgoing cargo mainly consists of bulk items (sand) and agricultural products; such as pineapple, sugar and molasses. In addition, the cruise ships regularly call on Kahului which brings visitors to Maui.

It is forecast that ship sizes and the frequency of calls to Kahului Harbor will increase as discussed in Section 3.3. In addition, there is a potential for interisland ferry service to begin in the future, with several companies showing interest. Such a company is the Hawaii Superferry ("Superferry"), which is scheduled to start service in early 2007. The current proposed schedule of "Superferry," which was approved by the PUC, is to service Hawaii, Kauai, Maui and Oahu with one stop each per day. The planned arrival time for "Superferry" at Kahului is 11:00 a.m. with a departure time at 12:00 noon.

At this point in time, the success of the "Superferry" is not guaranteed. It will provide an alternate transportation mode between the islands and will compete with the local airlines and interisland maritime services for a share of the interisland passenger and cargo

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<sup>10</sup> U.S. Census Bureau, Maui County, Hawaii

market. In the past, interisland ferry service between the major islands has not been successful.

#### 4.5.2 ALTERNATIVE ANALYSIS

##### **Development Alternatives.**

The proposed developments at the Harbor will increase the capacity of the Harbor to meet the existing and forecast vessel demand. The proposed Pier 1D extension will allow two large vessels to dock simultaneously at Pier 1 to meet the forecast vessel demand for Kahului Harbor. The forecast demand predicts an increase in vessel size and frequency-of-call will rise with or without this project. The ability to have the capacity to meet forecast demand will reduce the delays in unloading and loading passengers and cargo. Recently, the largest vessel to berth at Kahului Harbor had an overall length of 965 feet. The Piers 3 and 4 development and the Puunene Storage Yard create additional docking areas and cargo storage areas to accommodate the expected vessel sizes and frequency of calls. As the OPA 90 requirements for double-hulled petroleum vessels necessitate deeper berths than are currently available at Pier 3 and as the deep-water berths that would have been provided by the proposed 2C will not be available, existing berths and accesses to these berths must be deepened. Therefore, Piers 3 and 4 berths and accesses will be deepened by dredging. The development alternatives will not have any significant negative impacts on the population or the economy when compared to the No-action alternative. The development alternatives will not move population centers or shift employment areas, but will provide short-term increases in construction related industries. Therefore, there will be insignificant social and economic impacts due to the proposed improvements. There will be an increase in construction activity, which would have short-term positive impacts for the economy.

The Pier 1 comfort stations, water line and sewer line will have no negative impacts on the population or the economy. The construction of the improvement will provide short-term economic benefit to the construction industry.

##### **No-Action Alternative**

The No-Action Alternative would severely limit the capacity of the Harbor to accommodate future needs. It would create delays for the unloading and loading of cargo and passengers and increase the costs of goods in Maui. As all bulk shipments of petroleum products for Maui County arrive by ship, the fuel barges' petroleum products operations could experience extreme inefficiencies, and therefore will cause a significant economic impact for Maui.

In 1997, the *Economic Impact of Hawaii's Harbors* showed that if the port-economy were reduced to one-percent (1%) annually (whether by lack of infrastructure or investment), the effects would be:

- Sales and employment of the major harbor industries would be limited by 23.4%, i.e. would reach only 76.6% of the level anticipated for the year 2020;
- The Gross State Product would be curtailed by 2.1%; and
- Employment would be lowered by 0.5%.

## 4.6 GEOLOGIC AND GROUNDWATER CONDITIONS

### 4.6.1 EXISTING CONDITIONS

Geologically, the Island of Maui is characterized as East and West Maui, with East Maui dominated by Haleakala Volcano. West Maui, which includes the saddle isthmus between Haleakala and the West Maui Mountains and the Kahului/Wailuku areas (the Harbor location), is distinguished by Iao Needle in Iao Valley. There are five major geologic units on West Maui: (i) Pliocene and Pleistocene volcanic rocks, including the Wailuku and Honolua volcanic series; (ii) Pleistocene and recent volcanic rocks, including the Lahaina volcanic series; (iii) Pleistocene sediments which include calcareous dunes and consolidated earthy deposits; (iv) recent sediments which include unconsolidated deposits; and (v) historic volcanic rocks.

Typically, the West Maui basalt is thin-bedded a'a and pahoehoe created by quiescent flank eruptions along rift zones. A'a is characterized by a spiny, clinkery surface underlain by a dense core of rock. Pahoehoe has a smooth to billowy surface with a ropy or folded texture. The soils of West Maui, which reach depths of about 20 feet, indicate that the volcanic activity probably stopped in the Pliocene or earliest Pleistocene era.

The Harbor is situated at the northeastern corner of a broad isthmus that joins the two mountains. The underlying geology of the Harbor area is a sequence of intercalated volcanics, marine sediments, terrestrial sediments and fill laid on the northwestern flank of Haleakala. The shallow subsurface conditions along the landward side of the Harbor consists of exposed Pleistocene age sand dune deposits formed during a lower stand of the sea. Under the sand dunes lie lava flows and related deposits of the Kula Volcanic Series. This volcanic series is characterized as late stage volcanics of andesitic composition that formed thick flows of dense massive basaltic lava. The Kula lava flows are generally

mantled by a thin cover of volcanic ash. The base of the stratigraphic section in this area is the Honomanu Volcanic Series basalts of Haleakala. These rocks are primitive theoleitic lavas with the porous and layered structure typical of Hawaiian basalts.

The physiography of the Kahului Harbor area is characterized as being relatively flat with an average slope of less than 0.5 percent from south to north. The current ground surface elevations range from sea level at the coast to about 13 feet mean sea level (msl) along Maui Beach Road.

Earthquakes with epicenters on or near the Island of Hawaii originate from both volcanic and tectonic activity. Most of the volcanically related earthquakes are associated within the underground movement of magma and are relatively small. These earthquakes originate from the Molokai Seismic Zone, which includes the islands of Maui and Hawaii. The Molokai Fracture Zone is a series of fractures in the sea floor that stretch from the Hawaiian Islands to Baja California. Most of the fracture zone is seismically inactive, but significant earthquakes are associated with the portion near Hawaii.

Data on earthquakes recorded on Maui during historical times indicate that two large quakes in the Molokai Fracture Zone and the Ka'u earthquake of 1871 probably produced earthquakes in East Maui. Haleakala Crater is considered to be a dormant volcano. The potential earthquake damage to existing and proposed structures would be minimized by following the Uniform Building Code and other applicable rules and regulations. Presently, Kahului Harbor is in seismic Zone 2B as established by the Uniform Building Code (UBC).<sup>11</sup>

Ground Water Hydrology: The site overlies sediments of the Maui Isthmus and Kula Basalts which form a "caprock" or confining layer over the underlying basal aquifer in Honomanu Basalts. This confinement results in artesian conditions in the aquifer. Generally, Kanaha Pond is an expression of these artesian conditions resulting from leakage through the caprock.

The aquifer in Honomanu Basalt contains fresh water and is utilized in some locales by the Maui Department of Water Supply as a drinking water resource. In the region of the site, the basal aquifer is located at a depth of about 100 feet below the ground surface. At this depth, the potential of contamination from surface activities is low.

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<sup>11</sup> The Uniform Building Code categorizes the United States into various zones from 1 to 4. These zones are assigned a "seismic zone factor" which is used to compute the seismic design loads on structures. The "seismic zone factor" is related to the intensity of seismic activity in the region.

There are no public drinking water wells within several miles of the harbor. The nearest wells are situated at locations which are either across gradient of or in distinctly separate geohydrologic formations from the property and are hydrologically isolated by the caprock which underlies the harbor.

The Harbor and adjacent properties are situated makai (downgradient) of the Underground Injection Control Line in this area of Maui. Based on available Hawaii State Department of Health records, there are several known injection well facilities within a radius of approximately one (1) mile from the harbor. These wells are used for the disposal of municipal wastewater and storm runoff into the caprock formation. The wastewater wells are situated across gradient, and, the majority of the storm water wells are situated upgradient of the Harbor.

#### 4.6.2 MARINE ENVIRONMENT

Kahului Harbor, a fan-shaped basin at the head of Kahului Bay, is bounded on both the east and northwest by long breakwaters protected with boulders and concrete armor units. The sand shoreline at the head of Kahului Harbor between Pier 2 and the shore along Kahului Beach Road is known as Hoaloe Beach and transitions to Kahului Beach. The beach is composed of brown, detrital sand and is broken by several boulder jetties built to retard erosion. Much of the southwest shoreline between the extreme south corner of the harbor and the coral fill area is a beach of gravel to boulder size rubble (See Appendix C).

The general bathymetry of Kahului Bay, Kahului Harbor and adjacent coastal waters is shown in Figure 8. A sand channel entering Kahului Bay is believed to be a relic feature representing the ancient drainage course of Waikapu Stream.

Much of the southern and southwestern perimeter of the harbor is fringed by a shallow reef shelf extending a few hundred feet offshore. Beyond the reef edge, the dredged harbor bottom is a terrace of silty-sand and limestone rubble dipping gradually seaward to depths of over 50 feet (15 m) beyond the Harbor entrance. Off the sand beach west of Pier 2 is a sand bottom extending to a depth of 10 feet (3 m). From a depth of 10 feet, there are consolidated rock pocketed by sand, and at the seaward edge of this formation, the depth drops to the dredged basin forming the eastern portions of the harbor.

Between Piers 1 and 2 the bathymetry is the shallowest at the Pier 1 boathouse and along Pier 3 with depths ranging from 5 feet to 18 feet. The bathymetry increases eastward toward the turning basin to a depth of approximately 30 feet until the end of Pier 2 with deeper areas of approximately 35 feet near Pier 1. The majority of the bottom is covered with fine silt and mud with a few rock out-crops. Soil investigations at the corner of Piers 2





and 3 show the underlying substrate to be coarse-grained soils to a depth of about 35 feet below sea level. Similarly, the soil boring for the construction of Pier 3 bulkhead (near the north end of the current Pier 3), shows that the soil from approximately 15 feet to 50 feet below the water surface consists of coarse-grained soils such as loose clayey-silty sand and coral deposits.

Sand bottom occurs at depths greater than 30 feet (9 m) outside the mouth of Kahului Harbor. The west breakwater overlies an irregular reef whose margin is about 15 feet (5 m) deep. Here, the limestone platform drops a short distance to a sand bottom continuing offshore from a depth of about 20 feet.

The bottom of the harbor basin is comprised of sand and mud. The extensive sandy-mud bottom extends a long distance to the north outside of the harbor mouth. There are fringing reefs for several kilometers on either side of the Harbor, comprised of scoured reef platforms with sparse coral and fish communities.

#### 4.6.3 ALTERNATIVE ANALYSIS

##### **Pier 1D Preferred Alternative.**

The construction of Pier 1D will require the driving of piles to support the planned mooring dolphins and catwalk system. The piles will have a localized impact to the marine environment where the pile driving occurs, but will not cause significant impact to the marine environment. There will be no impact to geological or groundwater conditions. Typically, rip-rap protection will be laid under the pier to provide erosion protection for the edge of the turning basin. To further minimize impact to the marine environment, it is recommended to the extent practical, that all fabrication will be performed on fast land.

##### **Development Alternatives for Piers 3 and 4.**

The development alternatives for Piers 3 and 4 will be constructed on piles and/or on bulkheads with fill. The initial development may incorporate various mooring facilities such as; a pier on piles or bulkhead with fill, finger pier, and/or mooring/breasting dolphin(s). The full development would be a combination of bulkhead with fill, and/or piles. In addition, due to the draft of the ships arriving at Kahului Harbor, this area fronting the Piers 3 and 4 will needed to be dredged to a depth of 30 to 35 feet to allow for the use of the pier by the double hulled fuel barges which will be need to meet the OPA 90 requirements.

The volume of dredge material will be in the 60,000 to 70,000 cubic yards range. The dredged depth is needed to accommodate the ships expected to use the Pier 3 and 4 complex, such as the double-hulled fuel barges. These alternatives will not have a significant impact

on the marine environment, geological conditions or groundwater. To further minimize impact to the marine environment, to the extent practical all fabrication will be performed on fast land. During the dredging operation, the DOT-HAR will follow applicable rules and regulations, and the conditions of the U.S. Army Corps of Engineers permit, to further minimize impacts to the environment. Therefore, there will be no significant impact to the marine environment.

### **Pier 1 Comfort Stations, Waterline and Sewer Line**

The Pier 1 comfort stations, waterline and sewer line would require the excavation for the sewer and water lines and will not have a significant impact on the geological conditions or ground water. It will have no impact on the marine environment.

### **No-Action Alternative**

The No-Action Alternative will not have an impact on the marine environment, geological conditions or groundwater.

## **4.7 WAVE AND CURRENTS**

### **4.7.1 EXISTING CONDITIONS**

A wave climate and wave response study was conducted by the U.S. Army Corps of Engineers for the 2025 Master Plan and published in June 2002. Wave data for the Harbor were collected from November 1993 to May 1995 outside of the Harbor entrance using a directional array gage. The data shows that the Harbor is exposed to winds and waves from the north to northeast directions, and is protected from the northwest waves by the northwestern portion of Maui. Large waves generated by intense winter storms in the northern Pacific Ocean and hurricanes attack the Harbor. The wave data shows an annual mean significant wave height of approximately 3 feet and a maximum significant wave height of over 8 feet for 1994.

Currents outside of Kahului Harbor are predominately tidal driven and travel in the east and west direction. Inside the Harbor, the current has a clockwise circulation pattern during flood tide and counter clockwise during ebbtide. A drogue study completed in 2002 (presented in Appendix D) shows that there is generally limited exchange of waters from outside of the Harbor. Under strong tradewind conditions, the surface flow is across the harbor to the west.

#### 4.7.2 ALTERNATIVE ANALYSIS

##### **Pier 1D Preferred Alternative**

This proposed improvement will be constructed on piles and will have insignificant impacts on waves and currents in the Harbor.

##### **Pier 3 and 4 Alternatives**

The proposed development alternatives for Piers 3 and 4 will be pile-supported or a bulkhead with fill and pile structures and will have an insignificant impact on the harbor circulation and waves.

##### **Pier 1 Comfort Stations, Waterline and Sewer Line and Puunene Storage Yard Improvements**

Both the proposed Pier 1 comfort stations, waterline and sewer line project, and Puunene Storage yard improvement projects will have no impact on the harbor circulation and waves.

##### **No-Action Alternative**

The No-Action Alternative will have no impact on the existing harbor circulation or waves climate.

#### 4.8 WATER QUALITY

##### 4.8.1 EXISTING CONDITIONS

The State of Hawaii, Department of Health, currently lists Kahului Bay (inshore of the breakwater) as an impaired body of water due to high levels of nutrients and turbidity, under section 303(d) of the Clean Water Act. The impaired status of these waters requires that the Department of Health establish Total Maximum Daily Loads (TMDLs) suggesting how much the existing pollutant loads should be reduced in order to attain water quality standards in the stream and coastal waters. As of this date, the TMDLs have not been established.

Water quality sampling of Kahului Harbor was conducted on October 16, 2002, on a rising tide, and on April 15, 2003, during a period of strong trade winds. The results of both sampling days are presented in Appendix C.

Water temperature was generally uniform between nearshore stations and between the surface and 5 meter depths at nearshore stations. Within the harbor, surface waters tended to be 0.3 - 0.7 degrees Celsius (C) cooler than at 5 meters depth, reflecting surface cooling associated with passing rain showers and light trade winds during the first sampling. Shoreline water temperatures were generally 0.3 - 0.5 degrees C warmer than surface harbor waters, probably reflecting solar warming as shoreline samples were collected in the early afternoon.

During the October 2002 sampling, salinity levels were lower than typical for Hawaiian waters, ranging from 29.66 parts per thousand (ppt) at the shoreline station S2 to 34.35 ppt in nearshore samples outside the harbor. Depressed salinity levels reflected the recent input of freshwater by rain and runoff. In the April 2003 study, the water quality conditions at the nearshore stations outside the harbor were typically open coastal in nature, with higher salinity levels (34.14 – 34.89 ppt) than observed during the previous survey. Levels of dissolved nutrients were consequently low and typical of open coastal waters with little groundwater influence.

Samples collected along the shoreline again showed strong influence of groundwater, with the salinity of samples collected within the western part of the harbor (S2 – S6) ranging from 27.2 – 32.59 ppt. Lowest salinities were observed at stations S3 and S4, located in the southwest corner of the harbor. Salinity at station S1, a shoreline station on the northern face of the western breakwater, outside the harbor, was similar to open coastal waters (34.39 ppt), as was salinity (34.67 ppt) at S7, near the base of Pier 1.

Dissolved oxygen concentrations were generally typical of nearshore marine waters, ranging from 4.8 to 6.0 mg/l, values that are greater than 90% saturation at their respective temperatures and salinities. PH levels varied little and were typical of nearshore marine conditions.

Turbidity levels were highly variable between nearshore stations, increasing from west to east. This reflected visually-observed decreases in water clarity due to high surf and resuspended sediments on the western stations and both resuspended sediments and stream-borne sediments discharged during earlier heavy rains to the east. Nearshore turbidity levels ranged from 1.6 to 10.4 NTU. Turbidity levels within the harbor were not different from those in nearshore waters outside the harbor, and ranged from 1.9 to 9.4, with a very high value from a near-bottom sample (37.6 at E1). Turbidity levels at shoreline stations within

the harbor (S2 - S7) reflected variable shoreline wave action and build-up of detached macroalgal material. Overall, turbidity levels were highly significantly related to Total Suspended Solids, and showed the same patterns of distribution and concentrations (during April 2003).

Water samples taken during both sampling periods showed a strong influence of groundwater influx to the Harbor. Increasing levels of silicate with decreasing salinity reflect the dilution of low silicate nearshore coastal seawater with high silicate groundwater. The data suggests a groundwater source with a somewhat decreased silicate load. In addition, the nitrate + nitrite vs. silicate and phosphate vs. silicate relationships show a strong relation between silicate and other dissolved nutrients, suggesting a common upland source. Only samples located along the western shoreline of the Harbor, showed a different nitrogen to silicate and phosphorus to silicate ratio, suggesting a local source of additional nutrients or localized nutrient uptake.

Chlorophyll levels were generally low and showed no systematic relationship to salinity. Elevated chlorophyll levels were observed at shoreline stations along the coastline of the harbor.

#### 4.8.2 ALTERNATIVE ANALYSIS

##### **Proposed Development Alternatives**

All of the development alternatives will have insignificant impacts to the water quality of the Harbor. The proposed Pier 1 comfort stations and sewer line improvements will terminate the use of the cesspools at Pier 1 and are expected to have some beneficial effect in reducing the potential flow of nutrients into the Harbor waters in the vicinity of Pier 1. However, the proposed improvements will not significantly reduce existing nutrients or turbidity levels.

The design of the “in-water” projects will include measures, such as silt curtains and Best Management Practices, to the extent practical, to minimize the impact of the construction on the water quality of the area. The designers should coordinate with the Department of Health, Environmental Planning Office to attain a no-net increase in pollutant loads. During the dredging operation, the DOT-HAR will follow applicable rules and regulations, and the conditions of the U.S. Army Corps of Engineers permit, to further minimize impacts to the environment. With these measures, the construction of the “in-water” projects will have an insignificant impact to the water quality.

In addition, dumping in the harbor is illegal pursuant to HRS Chapter 19-42-127, “Littering or polluting of water prohibited,” it is illegal to pollute or discharge either directly or indirectly anything other than clean water into any harbor. The U.S. Coast Guard and the Harbors Division enforce this law. Therefore, there will be no legal dumping and discharge of pollutants in harbor waters due to the maritime demand. There is a spill response team, whose equipment is strategically located within Kahului Harbor, which is trained to respond immediately to spills and coordinate its efforts with the U.S. Coast Guard.

### **No-Action Alternative**

The No-action alternative will maintain the current water quality in the bay and will not reduce the nutrients or turbidity as stated by the Department of Health. However, there will be no significant impact on the existing water quality.

#### **4.8.3 SHORT-TERM CONSTRUCTION IMPACTS**

There is a potential for short-term impacts during construction of the proposed improvements. These impacts are short-term and are considered to be insignificant. To minimize the impact, the following mitigation measures will be included in the design as applicable.

- Designers shall coordinate with the Department of Health, Environmental Planning Office to attain a no-net increase in pollutant loads.
- Measures such as silt curtains will be used to control and isolate turbidity caused by in-water construction.
- Best Management Practices will be used to control runoff into harbor waters.

## **4.9 HISTORIC, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES**

### **4.9.1 EXISTING CONDITIONS**

An archaeological and cultural assessment was performed on the Kahului Commercial Harbor Master Plan 2025 and is included as Appendix B. The Kahului Harbor has been designated a historic site, Site 50-50-04-2953, in the State of Hawaii, Inventory of Historic Places maintained by the State Historic Preservation Division. However, the site is not on the National Register of Historic Places or the Hawaii Register of Historic Places, but is potentially eligible. This site consists of those features and structures of the Harbor



that were constructed during its main period of development between 1901 and 1931. The historical importance of this site is its link to the development of the sugar industry on Maui and the establishment of Kahului as the main commercial center.

The Harbor also falls within the Historic Kahului District as defined during the 1974 statewide inventory as Site 50-50-04-1607. Six structures are specifically listed as contributing elements, the Kahului Railroad roundhouse, shop and office, the First Hawaiian Bank, a school, and the fairgrounds (See Figure 9).

The potential for undiscovered subsurface cultural resources in most of the Harbor is quite low, as the piers were built on fill from the dredging to deepen the bay and enlarging the Harbor. However, a cultural deposit was revealed in TMK 3-7-8, and the State Historic Preservation Division noted the potential for such deposits on TMK 3-7-10:2.

The current cultural activities in the Harbor area, including fishing, surfing and canoe paddling, reflect a time when this part of Maui served as a primary area for these traditional Hawaiian recreational practices. Current users include two paddling organizations, the Hawaiian Canoe Club (established around 1974) and the Na Ka Ewalu (established around 1972). Both have *hale* located outside of the Harbor boundaries, in back of Hoaloa Beach. The paddling season usually extends from March to September/October. The clubs use the water area which consists of eight (8) lanes, and extends about 1/4 mile from shore, paralleling and passing Pier 2. Recent discussions with the canoe clubs indicate that other canoe organizations have been using the area, and therefore, the canoe facilities are being used year round.

Shore fishing is generally performed in three areas: Perimeter Road, Hoaloa Beach, and the west breakwater area. Two of the fishing areas, the Perimeter Road and Hoaloa Beach, are in or near the proposed improvements. From September 11, 2001, fishing has been prohibited along the Perimeter Road at Pier 1 for security reasons. No pole fishing is allowed from the piers, and net fishing is prohibited in the Harbor. In addition, small non-commercial boats are launched from the boat ramp on the western side of the Harbor. The majority of the boats leave the harbor, but there is some fishing and fish collecting performed within the Harbor. Some of the boats are used as support vessels for the canoe racing. The current security rules enforced by the U.S. Coast Guard do not allow unauthorized users to enter the area between Piers 1 and 2 and from the tip of Pier 2 to the tip of the east breakwater. In addition, there is a security zone that extends 300 feet around a passenger vessel. It is highly possible that during a high security risk level that all unauthorized vessels and non-commercial users of Kahului Commercial Harbor will not be allowed entry.







NOT TO SCALE



AERIAL PHOTO 09-2003  
AIR SURVEY HAWAII

DRAFT ENVIRONMENTAL ASSESSMENT  
KAHULUI COMMERCIAL HARBOR IMPROVEMENTS

Prepared by : Edward K. Noda and Associates, Inc.

HISTORICAL BUILDINGS

FIGURE 9

JANUARY, 2005

Surfers have used the western end of the Harbor along the breakwater for many years. It is considered an ideal surfing location for residents along the northern shores of Maui. Surfing is done primarily during winter, and good conditions can allow surfing from the breakwater to the beach area (towards the Harbor Lights condominium).

Swimmers and beach/park users use the beach. Swimming is infrequent due to the murky waters in the Harbor, however, during times of clear water, spear fishing and recreational diving does occur on the western side of the Harbor.

#### 4.9.2 ALTERNATIVE ANALYSIS

##### **All Development Alternatives**

Pier development will be constructed offshore or on existing fill lands. Therefore, there will be no impact on archeological sites. The pier development will have an insignificant or minimal impact, if any, on the historical districts as the Harbor derives its historical importance from the role played in the development of the Harbor. The pier modifications are simply a continuation of the process that gives the piers and wharves their historic value. Also, since the Harbor piers and wharves are regarded as significant cultural resources primarily because of their role in history and not their architectural qualities, these modifications will not affect the qualities that give the property its value.

Alterations to the Harbor may also indirectly alter the integrity of the historical setting for the three Kahului Railroad buildings that form contributing elements of the Kahului Historic District. The Kahului Railroad buildings are important for their architectural as well as historic value, but any indirect impacts should not affect their architectural integrity. Therefore, there will be no or insignificant impact to any of the historic structures.

The modifications to existing buildings, such as the comfort station, for example, will consist of minor alterations, involving extensions and expansions of current features rather than new construction on non-historic structures. Therefore, the proposed improvements will have insignificant impacts to the historical nature of the site.

The proposed water lines, sewer line, and the Puunene storage area improvements will involve excavation. However, these projects are not expected to have any significant impact on archaeological, historical or cultural resources as the potential of finding buried resources is low. Therefore, it is expected that these improvements will have insignificant impacts to archaeological and cultural resources. To further minimize the potential for impact, the mitigation measures in Section 4.9.3 are recommended.



#### 4.9.3 MITIGATION MEASURES

Although no or insignificant impacts are expected with the preferred improvements, the designers and contractors should minimize potential indirect impacts to the archaeological and cultural resources as stated in the letter from the SHPD on October 23, 2003. Also, SHPD provided a determination of “no historic properties affected” in their letter dated March 31, 2004.

The October 2003 letter states, that while the potential for finding buried cultural deposits appear quite low, should human remains, prehistoric or historic artifacts, or cultural features (such as trash pits, post holes, or hearths) be encountered in the course of excavation during construction, the contractor shall halt work in the area and contact the SHPD Maui Office in accordance with Section 6e of Chapter 343, Hawaii Revised Statutes.

For the Puunene storage facility, the sewer line and the roadway/bridge from Pier 2 and other projects which impact TMK 3-7-08: 01, 03, inland portion of 04, and 06 inland of Pier 2 on the west side of Wharf Street, a qualified archaeological monitor shall be present at all ground-altering activities. For these projects, a monitoring plan shall be prepared prior to the commencement of construction and a monitoring report submitted to the SHPD at the end of the monitoring.

#### 4.9.4 NO-ACTION ALTERNATIVE

The existing impacts on the historical area will remain with the No-action alternatives. There will be no additional impacts on archaeological, historical and cultural resources.

### 4.10 BIOTIC COMMUNITIES

#### 4.10.1 EXISTING CONDITIONS

##### 4.10.1.1 FLORA

As the Harbor area is already developed and predominantly on filled land, the existing flora consists of landscaped plants and weeds. The landscaped plants and weeds are a mix of introduced and native species, such as beach naupaka, Bermuda grass and tree heliotrope. There are no endangered, threatened or species of concern in the area.

#### 4.10.1.2 FAUNA

As the Harbor area is already developed, the existing fauna is expected to be that found in other similar commercial / industrial areas. There are no endangered, threatened or species of concern in the area. There have been observations of waterbirds in the drainage way, to the west of Pier 2. These sightings were intermittent, and the area is not used for nesting by these water birds.

#### 4.10.1.3 MARINE BIOTA

Within Kahului Harbor, the crab, *Macrophthalmus telescopicus*, is the most conspicuous inhabitant of the silty-sand bottom nearshore between Piers 1 and 2 in the eastern portion of the Harbor. Less common are solitary tunicates and a few small solitary heads of the coral, *Montipora* sp., in poor condition. *Mugil cephalus* (striped mullet), *Selar crumenophthalmus* (big-eyed scad), *Decapterus macarellus* (mackerel scad), *Acanthurus triostegus* (convict tang), *Etrumeus micropus* (herring), *Kuhlia sandvicensis* (Hawaiian flagtail), *Caranx ignobilis* (giant trevally), and *Chanos chanos* (milkfish) are reportedly common within the harbor. A detailed description is presented in Appendix C.

#### 4.10.1.4 ALIEN PEST SPECIES

The arrival of large overseas vessels, barges and passenger vessels in Kahului Commercial Harbor have the potential to introduce alien pest species through cargo, passengers, ballast water and onboard ships. Some of these alien species may become invasive and harmful to the State. In fact, the State of Hawaii, including Maui County, receives approximately 79 percent of all goods and commodities used in Hawaii through its commercial harbors. Harmful alien pest species include organisms, plants, predators and insects which can: damage native forests, streams and watersheds; compete with and cause the extinction of native flora and fauna; carry diseases that may affect native species, agricultural crops and humans; and interrupt the shipment of local produce (Reference 5). Currently, the prevention of the introduction of alien species to Maui is under the jurisdiction of the: State of Hawaii, Department of Agriculture (HDOA); Hawaii Department of Land and Natural Resources, Division of Aquatic Resources (DLNR-DAR), U.S. Department of Homeland Security (formerly U.S. Customs and U.S. Department of Agriculture); and the State of Hawaii, Department of Health. These agencies monitor, inspect, quarantine and certify cargo from foreign ports and inter-state / intra-state cargo. In addition, the DOT-HAR and the DOT is participating in committees, such as but not limited to the Coordinating Group on Alien Pest Species (CGAPS), and task forces to monitor and resolve the potential introduction of alien pest species. DOT-HAR will continue to work with these

agencies which have jurisdiction and authority on the prevention and control of alien pest species within the commercial harbors.

Alien species can be introduced purposefully or incidentally, such as by hitchhiking on cargo or as stowaways in the containers. Therefore, many of the alien pest species hitchhike on commodities imported by businesses and residents of Maui County. This is shown in the results from the Kahului Airport Risk Assessment, which indicates that the passengers are typically a low risk pathway for the importation of alien species. The high risk commodities for the importation of alien pest species include plants and propagative plant parts. Other high risk commodities include organic produce, leafy greens (such as lettuce, cabbage and kale), cut flowers, strawberries, and peppers. Other high risk commodities which enter through the Harbor include Christmas trees and other plant material.

Once an alien species is established on one island it is highly likely to spread to other islands, especially seeds and flying insects. The interisland dispersal pathways include, but are not limited to, seeds carried by birds, migration of birds, dispersal by wind and dispersal by ocean currents.

The HDOA has designated Kahului as a limited port-of-entry for overseas agricultural commodities, therefore only plants and plant products such as produce and cut-flowers are allowed entry. Live animals (except live seafood for consumption) and microorganisms from foreign and domestic origins are not allowed entry through Kahului unless inspected by HDOA in Honolulu prior to the transport to Kahului.

Therefore, pursuant to the HRS, Section 150A-5 any person transporting any agricultural commodity to Hawaii shall notify the HDOA and hold the commodity on the dock, pier, wharf, airport, air terminal where they are first received or discharged until inspection can be made by the Plant Quarantine Inspector. However, because there has always been a shortage of space at the piers, transportation companies have been requesting more inspections to be done at sites other than the dock or at the dock but before or after regular work time to allow for the containers to be moved from the docks. For the maritime operations, the shippers will reimburse the State for the inspector's cost to inspect the containers during overtime hours.

Although HDOA manpower is limited at other ports, the addition of DOT funded agricultural inspectors at Kahului Airport allows the non-Airport inspectors to work more hours at the Harbor to perform the necessary inspections. In addition, there are more inspectors to work overtime hours to inspect the incoming maritime commodities, if necessary.

Similarly, propagative agricultural commodities cannot move between islands without HDOA inspection. If this cargo is not inspected by HDOA, Young Brothers will not allow the cargo to be boarded onto the vessel. Non-propagative plant parts, such as cut flowers, fruits, vegetables and produce, need not be inspected provided that they are subject to random inspection by HDOA. Similarly, Hawaii Superferry is currently working on the HDOA requirements for their operations with HDOA and has included the following measures in their Tariff No.1.

- *“Domestic cats and dogs **ONLY** may travel on Carrier’s [“Superferry”] vessels. No other animals are permitted except livestock and poultry from Hawaii Department of Agriculture (HDOA) licensed agricultural producers. Carrier does not permit the carriage of reptiles, snakes, birds (except HDOA registered poultry transported by registered growers), rodents or exotic species of animals of any kind.*
- *Only plants, flowers and crops that have either been inspected and passed at the HDOA Plant Quarantine Office or via the Nursery Self Certification Program may be transported on Carrier’s [“Superferry”] vessel. In all cases, a “Passed” sticker must be shown before plants will be allowed on the ferry. No other plants will be permitted on the ferry and must be left for destruction by Carrier’s [“Superferry”] personnel.”*

The DLNR-DAR is the designated lead agency for preventing the introduction of alien aquatic organisms and for carrying out the destruction of these organisms through the regulation of ballast water discharges and hull fouling organisms through Act 134 Sessions Law 2000. In September 2003, the DLNR-DAR completed the State of Hawaii Aquatic Invasive Species Management Plan. Alien pests may be present aboard the incoming ships, especially in ballast water and on the hull. As Hawaii is primarily an import state, this minimizes somewhat the potential of alien species introduction through ballast water. Cargo ships are typically laden with cargo and have minimal volumes of ballast water. As cargo is off-loaded from the ship, ballast water is taken on rather than discharged (Reference 8).

In addition, many of the cruise lines signed the NWCA Memorandum of Understanding (MOU) for waste management. This MOU is based on the International Council of Cruise Lines Industry Standard, *“Cruise Industry Waste Management Practices and Procedures,”* Appendix II. In addition, the MOU includes the following provision: *No discharge of untreated blackwater, treated blackwater or graywater within the Hawaii Marine Area. The Hawaii Marine Area is those waters between the shoreline and any point four nautical miles beyond the 100 fathom contour line.*

#### 4.10.2 ALTERNATIVE ANALYSIS

##### **All Development Alternatives**

Due to the existing development in the harbor, the proposed improvements will have insignificant impacts on the terrestrial fauna and flora. As there are no endangered or threatened species or species of concern in these areas, there will be no impact on any listed terrestrial flora or fauna by the proposed improvements.

The proposed improvements will have an insignificant impact on the marine biota. The Piers 3 and 4 dredging will be in areas impacted by existing in-water facilities, past dredging operations and current harbor use and therefore would have no significant impact. All of the proposed developments will have no impact to any listed species.

The proposed improvements are not expected to increase the number and types of ships to Kahului Harbor, nor the amount of cargo or passengers entering Maui through Kahului Harbor. Therefore, the improvements will not increase the amount of alien species entering Maui and will have an insignificant impact on the introduction of alien species to Maui.

##### **No-Action Alternative**

The no-action alternative will have no impact on terrestrial flora or fauna and marine biota, other than existing impacts. Alien species will continue to enter Maui by hitchhiking on the commodities imported by the businesses and residents of Maui.

#### 4.11 WETLANDS

##### 4.11.1 EXISTING CONDITIONS

The U.S. Army Corps of Engineers has delineated a portion of the unlined drainage way near Pier 2 as a wetland. However, in a letter of October 18, 1996, the United States Department of Interior states that to the best of their knowledge, no endangered or threatened species are within the project area. Also, no endangered or threatened bird species were encountered during recent field visits. This drainage way runs through the beach area next to Pier 2 and is connected and fed by the County's lined drainage channel which parallels Puunene Avenue. A Botanical Resources Assessment Study was completed by Char & Associates in January 1997. The Assessment does not list any endangered or threatened species in this area. The water is supplied by a manmade drainage system, owned by the



County of Maui, that collects water from off-harbor areas. The County of Maui is considering relocating the canal to an off-harbor location.

#### 4.11.2 ALTERNATIVE ANALYSIS

##### **Proposed Development Alternatives**

The proposed developments for Pier 1D, Pier 3, Pier 4 and the comfort stations, waterline and sewer line will have no impact on wetlands.

The proposed Puunene storage yard improvements will require a bridge to be constructed immediately south of the wetlands but will not impact the wetland directly. In addition, as stated above, mitigation measures will be used to prevent further degradation of the water quality during construction. The access bridge will not have an impact on the wetlands.

##### **No-Action Alternative**

The no-action alternative will have no impact on the existing wetland.

#### 4.12 FLOOD PLAINS

##### 4.12.1 EXISTING CONDITIONS

The entire Harbor is located in a V23 flood zone as delineated in the Flood Insurance Rate Map, which indicates flooding due to wave action (tsunami). Base flood elevations range from 10 feet to 18 feet.

##### 4.12.2 ALTERNATIVE ANALYSIS

##### **Proposed Development Alternatives**

The proposed development alternatives will not have an impact on the floodplains in the Harbor. The proposed access bridge will be designed to accommodate the existing drainage way. The proposed improvements will be in compliance with the development criteria for construction in the flood zone. The DOT-HAR will comply with the National Flood Insurance Program regulations, as applicable.

## **No-Action Alternative**

The No-action alternative will not have an impact on the floodplain.

### **4.13 ENERGY SUPPLY**

#### **4.13.1 EXISTING CONDITIONS**

Electrical energy is supplied by Maui Electric Company (MECO) through overhead lines on Kaahumanu Avenue, Wharf Street, Puunene Avenue and Hobron Avenue. The harbor is supplied from both the Kahului Substation No. 8 and the Kanaha Substation No. 2.

#### **4.13.2 ALTERNATIVE ANALYSIS**

### **Proposed Development Alternatives**

The proposed development alternatives are expected to have an insignificant impact on the electrical demand on Maui. The proposed developments have been discussed with MECO representatives during the planning process. There will be an increase in demand due to the forecast increase in maritime demand but this increase will occur with or without the proposed projects. There will be an increase in short-term use of petroleum products and energy consumption during the construction phases of these projects.

## **No-Action Alternative**

The No-Action Alternative will not have an impact on energy consumption, other than existing and forecast demand. There will be a relative increase in energy consumption as the passengers and vessel demand increase in the future, however, this should be an insignificant impact.

### **4.14 LIGHT EMISSIONS**

#### **4.14.1 EXISTING CONDITIONS**

Due to the 24-hour operation of the harbor, the docks and storage areas are well illuminated to allow for Harbor operations to be performed under safe and secure light conditions. In addition, lower intensity lighting is used for security/safety purposes and for navigational aids.

#### 4.14.2 ALTERNATIVE ANALYSIS

##### **Proposed Development Alternatives**

The proposed Pier 1D, Pier 3 and Pier 4 improvements will include lighting for navigational aids, safety and operational purposes. The operational and safety lights will be attached to existing and new structures or “pole” mounted to provide the necessary illumination characteristics.

The Puunene Storage yard will have lighting for security and safety purposes. The lighting will be provided by overhead lights, either on buildings or “pole” mounted. The sewer line, waterline and comfort stations improvements will also have outside lighting fixtures.

The new lighting will increase the amount of light emissions, however, the impact will not be significant as the area is well-lit under existing conditions. In addition, the Harbor is located in an urbanized area and has a high level of ambient light. The proposed lighting will provide for a safer environment, especially at the Puunene storage area. Although the impact is insignificant, to further minimize the impact, certain measures will be undertaken to minimize any spillover effect from the new lights and to reduce environmental harm. For example, new lighting will be properly shielded and directed to prevent intrusion into areas outside the harbor areas to the extent feasible and reasonable. In addition, new lighting will be in compliance with applicable lighting codes and standards. It is also recommended that the designers follow DLNR’s publication, *The Newell's Shearwater Light Attraction Problem*.

##### **No-Action Alternative**

No new lighting will be provided and the existing light emission level will remain.

#### 4.15 WATER SUPPLY

##### 4.15.1 EXISTING CONDITIONS

The County of Maui Department of Water Supply (DWS) administers and operates the water systems on Maui. The Central Water System (CWS), one of five island systems, serves the Harbor, the urban and rural areas of Wailuku-Kahului, Kihei-Makena and the smaller portions of Paia. The CWS draws water from four aquifers: Kahakuloa, Waihee, Waikapu, and Iao. The Harbor receives water from the Iao aquifer. The project water use

by 2010 at Kahului Commercial Harbor is expected to reach 0.04 million gallons per day (mgd).

The Iao aquifer has an estimated sustainable yield of 20 mgd. As of July 21, 2003, the state Commission on Water Resource Management (CWRM) designated the Iao aquifer as a Groundwater Management Area. Based on a 12-month moving average from October 2003 to September 2004, the total pumpage was 16.65 mgd (Reference 14).

As noted above, the DWS has estimated that the Iao aquifer has sustainable yield of 20.1 mgd. DWS has also estimated that the future average demand for all uses will be 30.5 mgd. As the forecast future demand for all uses exceeds the estimated aquifer yield, the County has initiated the development of other water sources in East Maui. The existing water system serving the Harbor is made up of a network of pipelines with diameters ranging between four to eight inches. The system is connected to a 12 inch water main under Kaahumanu Avenue.

#### 4.15.2 ALTERNATIVE ANALYSIS

##### **Proposed Development Alternatives**

In general, the water demand will increase due to the forecast increase in passengers and vessels utilizing Kahului Harbor with or without the Proposed Project. The Pier 1D, Pier 3, and Pier 1 comfort stations, water line construction will have no impact on the water distribution system. The Pier 1 upgrade, Puunene Storage Yard, and Pier 4 will have new water lines. The proposed improvements will have an insignificant impact on the water demand and supply system. As stated in Section 3.4, the proposed improvements will incorporate sustainable building guidelines, as practical, to further minimize water use. These measures may include the use of water saving and energy conservation devices, and the use of xerophagic native plants.

##### **No-Action Alternative**

The water demand will increase in relationship with the forecast passenger demand and will have an insignificant impact on water demand or the supply system.

## 4.16 SOLID WASTE

### 4.16.1 EXISTING CONDITIONS

Solid waste from the Harbor and its operations are collected by a private firm contracted by the State or the users. Solid waste is collected and disposed of at the Central Maui Landfill. In the design of the proposed improvements, and in accordance with the County of Maui rules, the Contractor will need to submit a plan for construction waste disposal and recycling.

### 4.16.2 ALTERNATIVE ANALYSIS

All alternatives, including the No-action alternative, will have an insignificant impact on the amount and composition of the solid waste generated at the Harbor. Due to the forecast increase in maritime demand, the volume of solid waste will increase in relation to the demand. The composition of the waste is not expected to differ from the existing composition.

For the development of the proposed improvements, there will be a short-term increase in the construction waste generated at the Harbor. Due to the short-term nature, this increase will have an insignificant impact. If during the demolition, hazardous waste or asbestos containing building materials need to be disposed, the contractor will be responsible for transport and disposal at an acceptable disposal site. The dredging of the Harbor will create excess material, which could be: used to fill the Pier 4 area, if constructed as a bulkhead pier; used as a fill material on land, if suitable; disposed at an approved landfill in Hawaii or overseas; or disposed at sea. If the disposal at-sea was implemented, the disposal would be in an Environmental Protection Agency (EPA) designated disposal area and the required testing would need to be completed to insure acceptability of the material for ocean disposal. These tests would be conducted prior to disposal of the material at an ocean disposal site. If the tests do not allow for ocean disposal, the excess material will be disposed of at an approved landfill site. The dredging would require a permit issued by the U.S. Army Corps of Engineers and applicable conditions imposed by the U.S. Army Corps of Engineers will be followed. Therefore, due to the proper disposal of the dredge material, there will be insignificant impacts.

## 4.17 WASTEWATER COLLECTION, TREATMENT AND DISPOSAL

### 4.17.1 EXISTING CONDITIONS

Kahului Harbor is served by the Wailuku-Kahului Wastewater Reclamation Facility (WRF), the primary County wastewater treatment facility and located to the east of the Harbor. WRF is a secondary, activated-sludge treatment facility that has a design capacity of 7.9 mgd. Effluent is disposed of through eight (8) injection wells located north of the treatment plant. In addition, the plant also has a storage pond available to accommodate peak flows. Because of its location in the tsunami inundation zone and the high maintenance costs due to its location near the ocean, the plant is not scheduled to undergo any further expansion at this time. The wastewater generated on the “Superferry” will be discharged in Honolulu.

The existing Harbor sewage system serves the facilities at Pier 2 and along Ala Luina Street. The major collector lines are on Wharf Street, Puunene Avenue and along the old Second Street alignment (parallel to Kaahumanu Avenue). The County has plans to replace the sewer line along the old Second Street alignment with a new force main. The comfort stations on Pier 1 currently discharge into cesspools.

### 4.17.2 ALTERNATIVE ANALYSIS

#### **Proposed Development Alternative**

The proposed development alternatives will have insignificant impact on the wastewater collection and treatment system. The renovated Pier 1 comfort stations and sewer line will be connected to the system. Once the sewer line and comfort stations are operational, the cesspools will be closed, and the Harbor will be in compliance with the DOH and EPA rules on large capacity cesspools.

#### **No-Action Alternative**

The No-action alternative will have no impact on the existing wastewater collection and treatment. The current use of cesspools will remain as existing and the DOT-HAR will not achieve compliance with DOH and EPA regulations.

## 4.18 POLICE AND FIRE SERVICES AND PUBLIC SAFETY

### 4.18.1 EXISTING CONDITIONS

A private company is hired by the Harbors Division to provide security on the harbor properties. However, the Maui County Police services are also used. The County police services are provided to the Harbor and Central Maui areas from the police station located within the Wailuku Civic Center. The County Police Department, in association with State and private security services, presently provides security services to the Harbor.

County fire services are provided from the Kahului and Wailuku Fire stations, located approximately two and three miles, respectively, from the Harbor.

The “Superferry” is required by law (33 Code of Federal Regulations) to develop, implement and maintain a Hawaii SuperFerry Vessel Security Plan that is submitted to and approved by the U.S. Coast Guard. The Hawaii SuperFerry Vessel Security Plan must include the SuperFerry’s security personnel, training, drills and exercises, record keeping, Maritime Security Level coordination and implementation, procedures for interfacing with terminal facility security, Declaration of Security, security systems and equipment maintenance, security measures for access control (including screening of vehicles and passengers), security measures for restricted areas, security measures for handling cargo, security measures for delivery of stores and bunkers, security measures for monitoring, security incident procedures, etc. The U.S. Coast Guard will monitor and enforce the security requirements of the Hawaii SuperFerry Vessel Security Plan. Whenever required, the Hawaii SuperFerry and the U.S. Coast Guard will request the assistance of the Maui Police Department, the State Department of Public Safety Sheriff Division, the Federal Bureau of Investigation, the State Department of Defense, the State Department of Land & Natural Resources Enforcement Officers and the Department of the State Attorney General.

### 4.18.2 ALTERNATIVE ANALYSIS

The proposed improvements and the no-action alternative will not have an impact on the police, fire and public safety services.

## 4.19 HEALTH CARE FACILITIES

### 4.19.1 EXISTING CONDITIONS

Health care and hospital services on Maui are provided by Maui Memorial Medical Center, the island's only full service hospital for acute care. Maui Memorial Medical Center is licensed for 196 beds, and is a state hospital being operated by the Hawaii Health Systems Corporation. Other private facilities treat long-term and specialty care patients. Tertiary services are provided on Oahu and/or the mainland U.S. Private clinics, such as Kaiser Clinic and the Maui Medical Group, as well as private physicians, also provide health care services to island residents and visitors.

Maui Memorial Medical Center, as with other state and private health care providers, is subject to insufficient funding, shortages of acute care beds and difficulties in hiring staff. The shortage of acute care beds is critical, with occupancy generally over 90 percent. Visitors to Maui use approximately 5 to 10 percent of the total beds at the hospital.

### 4.19.2 ALTERNATIVE ANALYSIS

The proposed improvements and the no-action alternative will not have an impact on Maui's health care system.

## 4.20 SCHOOLS

### 4.20.1 EXISTING CONDITIONS

The State Department of Education (DOE) administers the Baldwin educational complex in the Wailuku-Kahului area and Maui High School. These facilities consist of elementary, intermediate and high schools. In 1990, the Baldwin complex had an enrollment of 6,400 students. Projected enrollment for the Baldwin complex for 1996 is 8,358 students. The 1990 total island-wide school capacity was 13,789 students, while total projected enrollment for 1996 is 17,066 students. The DOE projects additional classroom facilities will be required to accommodate the forecast student population. New elementary schools in Wailuku are helping to alleviate some of the shortfall in classrooms.

### 4.20.2 ALTERNATIVE ANALYSIS

The proposed improvements and the no-action alternative will not have an impact on the school system.



## 4.21 RECREATIONAL FACILITIES

### 4.21.1 EXISTING CONDITIONS

Most recreational activities in the vicinity of Kahului Harbor are ocean related and occur along the coastline. The existing beaches, such as Hoaloe Park, are within Kahului Harbor and used for fishing, beachcombing, and canoeing. Spear fishing and fish collecting can be performed when water conditions allow. As stated above, there is a canoe race course near Pier 2 offshore of Hoaloe Park.

Kahului Harbor Park, located on the fill area of the west breakwater, is maintained by the Maui County Department of Parks and Recreation. A small boat ramp is also located near the park. This area of the Harbor is generally used by fishermen, surfers and limu pickers. Swimming is not popular in the harbor due to the murky water and rocky bottom. During the interview process of this study, it was noted that the water appeared cleaner now that Maui Land and Pine is no longer discharging into the Harbor. Maui County also owns and maintains Keolu Park which is located South of and across the street from Kahului Harbor Park, and stretches from Kahului Beach Road to Kaahumanu Avenue.

As Kahului Harbor is a commercial harbor, there are conflicts with existing recreational uses as evidenced in the comments relating to the development of Pier 2C. This is an existing impact and will continue to worsen as both maritime operations and recreational uses increase. Under the Hawaii Revised Statutes Chapter 266-1, a commercial harbor “*means a harbor or off-shore mooring facility which is primarily for the movement of commercial cargo, passenger and fishing vessels entering, leaving or traveling within the State, and facilities and supporting services for loading, off-loading, and handling of cargo, passengers and vessels.*” Current security measures also enlarge the area restricted to commercial vessels only and may close the Harbor to all users except for authorized users.

### 4.21.2 ALTERNATIVE ANALYSIS

#### **Proposed Development Alternatives**

The Pier 1D, Piers 3 and 4, the Puunene Storage Yard, and the Pier 1 comfort stations, waterline and sewer line improvements will not have an impact on recreational facilities.

## No-Action Alternative

The existing conflicts with recreational users within the Harbor limits will continue to exist and possibly increase in relation with the forecast vessel demand.

### 4.22 SURFACE TRANSPORTATION SYSTEM

#### 4.22.1 EXISTING CONDITIONS

In the vicinity of the proposed projects, the major surface streets are Kaahumanu Avenue, Puunene Avenue, Hobron Avenue and Hana Highway. Other surface streets include Wharf Street, Ala Luina Street and Second Street (See Figure 4). Hana Highway and Kaahumanu Avenue function as the major roadway in the area, serving both regional and local vehicular traffic. The following is a brief description of the existing roadways.

- Hobron Avenue. Hobron Avenue is a short two-lane roadway connecting Hana Highway and Kaahumanu Avenue to Kahului Harbor (through Ala Luina Street). A number of Harbor-related uses are on this street, with resultant large volumes of truck traffic. Access to the Hobron Avenue area is awkward, with left-turns into the area permitted via the Hana Highway-Kaahumanu Avenue intersection and left-turns out of the area restricted to the Hobron Avenue-Hana Highway intersection. Right-turns in/out are permitted at both intersections.
- Puunene Avenue. Puunene Avenue is a State roadway that extends from the Kahului Harbor area south to the Puunene community. In Puunene, it connects to Mokulele Highway to provide access between the Kihei-Wailea area and Kahului. The roadway provides one lane in each direction for most of its length.
- Wharf Street. Wharf Street is a short two-lane roadway that serves as one of the primary entrances to the Harbor from Kaahumanu Avenue.
- Ala Luina Street. Ala Luina Street is the Harbor's internal roadway that links Hobron Avenue and Wharf Street. It is a two-lane roadway that snakes through the Harbor connecting Piers 1, 2 and 3 with the external circulation roadways.
- Perimeter Road. The Perimeter Road provides access along the coastline from Hobron Avenue / Ala Luina Street to the container storage yard on Pier 1.

Table 4-1 lists the intersections in the vicinity of the proposed projects and identifies the control at the present time.

**TABLE 4-1  
MAJOR INTERSECTIONS NEAR KAHULUI HARBOR**

| <b>Intersection</b>   | <b>Control Device</b> |
|---|-----------------------|
| Hobron Avenue / Ala Luina Street                                    | Stop Sign             |
| Hobron Avenue / Amala Street  | Stop Sign             |
| Hobron Avenue / Kaahumanu Avenue                                    | Signalized            |
| Kaahumanu Avenue / Wharf Street                                     | Signalized            |
| Kaahumanu Avenue / Puunene Avenue                                   | Signalized            |
| Kaahumanu Avenue/Maui Beach Hotel<br>& Maui Palms Hotel/Lono Avenue | Signalized            |

The Maui Long-Range Land Transportation Plan (1997) presents recommendations to the roadway network near the Harbor which should be in place by 2020. These improvements include:

- the widening of Puunene Avenue to four lanes from Kaahumanu Avenue to Mokulele Highway; and
- the widening of Hana Highway to six lanes from Kaahumanu Avenue to Dairy Road.

The analysis of existing ground traffic conditions is presented for the morning and afternoon commute peak hours. The commute peak hours represent the highest traffic volumes on most major roads within the Harbor's vicinity. The analysis for roadway intersection is based on the *Highway Capacity Manual*, which uses a calculation of a volume capacity ratio and delay to relate to a Level of Service (LOS). The LOS has six levels, A through F, which relate to driving conditions from best to worst. LOS A represents free-flow conditions with no congestion, while LOS F represents severe congestion with stop and go conditions. LOS D is typically considered acceptable peak hour conditions in urban areas.

Past studies have found that the major roadway intersections in the vicinity of the Harbor are operating at a relatively acceptable level of service. In 1994, the Kahului Airport traffic study found that the intersection of Hobron Avenue/Kaahumanu Avenue had a LOS A during the morning peak hour and a LOS B for the afternoon peak hour. This intersection LOS would remain the same even with the 2010 forecast (Airport's traffic study) increase in traffic. A study in 1995 and 1997 found that the Wharf Street/ Kaahumanu Avenue intersection was operating at a LOS A for both morning and afternoon peak hours. The 1995 study also found that the intersection of Puunene Avenue/Kaahumanu Avenue had a LOS B for the morning peak hour and a LOS C for the afternoon peak hour. In 2000, a study of the signalized intersection of Kaahumanu Avenue/Maui Beach Hotel & Maui Palms Hotel Driveway/Lono Avenue operated at LOS B in the morning peak hour and LOS C during the afternoon peak hour.

The results shown in Table 4-2 are from the Hobron Triangle Retail Development (Reference 12) for the intersection at Kaahumanu Avenue and Hobron. The study showed that the intersection peak hour movements occurred from 6:30 a.m. to 8:30 a.m. and from 3:00 p.m. to 5:30 p.m. The survey data was recorded in October 2002.

**TABLE 4-2**  
**LEVEL OF SERVICE ANALYSIS FOR**  
**KAAHUMANU AVENUE AND HOBRON AVENUE**  
**(from Hobron Triangle Retail Development)**

|                               | Morning Peak Hour |              |                  | Afternoon Peak Hour |              |     |
|-------------------------------|-------------------|--------------|------------------|---------------------|--------------|-----|
|                               | Volume            | Delay (sec.) | LOS <sup>1</sup> | Volume              | Delay (sec.) | LOS |
| Northbound Left, Thru & Right | 138               | 7.5          | A                | 167                 | 8.0          | A   |
| Southbound Left, Thru & Right | 110               | 7.6          | A                | 275                 | 7.5          | A   |
| Westbound Left, Thru & Right  | 2                 | 10.2         | B                | 4                   | 11.8         | B   |
| Eastbound Left & Thru         | 106               | 12.5         | B                | 89                  | 15.7         | C   |
| Eastbound Right               | 13                | 8.7          | A                | 32                  | 9.9          | A   |

1. Level of Service (LOS) is calculated using the operations method described in the *Highway Capacity Manual*. LOS is based on delay.

The internal roadway consists of basically Ala Luina Street linking the internal traffic to Hobron Avenue and to Wharf Street. Congestion within the Harbor is localized and dependent on the vessel arrival, type of cargo or passengers, and volume. The major congestion areas are at Pier 1 with the cruise ship traffic and unloading of the overseas cargo vessels, and at Pier 2 during the unloading and loading of the interisland barge.

The “Superferry” traffic impacts will occur with or without the proposed improvements. These impacts will occur during a short interval of approximately 30 minutes, once per day. The traffic is currently expected during the off-peak hours, and will be primarily limited to Wharf Street or Hobron Avenue.

#### 4.22.2 ALTERNATIVE ANALYSIS

##### **Proposed Development Alternatives**

The traffic from the Harbor in general will increase due to the expected demand with or without the project. There may be short-term construction impacts to the Harbor operations and therefore, care will be given to plan and schedule harbor and vehicle traffic during construction so as to not interrupt bulk fuel deliveries.

The use of Pier 4 by a ferry operation would create a short-interval of increased traffic either on Hobron Avenue and/or Wharf Street and their respective intersections. The proposed improvements, themselves, will not increase traffic when compared to the No-action Alternative, and due to the short-interval of the ferry traffic, there will be no significant impacts.

##### **No-Action Alternative**

The no-action alternative will have no impact on the surface transportation system. The existing problems and congestion will remain. Traffic will increase due to the forecast increase of population, passengers and cargo demand to Maui.



## **SECTION 5.0**

### **DETERMINATION, FINDINGS, AND REASONS SUPPORTING DETERMINATION**

Based on the foregoing analysis, the preferred alternative(s) of the proposed project includes:

- Pier 1 extension (Pier 1D);
- Pier 1 comfort stations and sewer line (exempt project);
- Pier 1 waterline;
- Pier 3 expansion (including dredging between Piers 1 and 2);
- new Pier 4, which may be constructed in phases as funds become available; and
- the structural pavement, access bridge and utilities at “Puunene Yard.”

The selection of the Master Plan configuration for Piers 3 and 4 or the combined linear Pier 3 and 4 will be dependent on funding and the type of vessel which will be used in future operations. The construction of Pier 2C improvements is not included in the proposed project. The DOT and its Director have agreed to remove the construction of Pier 2C from consideration due to comments received from the canoe clubs which utilize the Kahului Commercial Harbor for practices and regattas.

The proposed project (preferred alternatives) will not have any significant impact on the environment and, therefore, preparation of an Environmental Impact Statement is not required. The preferred alternatives are compatible with the existing and future land uses and activities in the area. The applicant will comply with applicable statutes, ordinances and rules of the Federal and State governments. Therefore, this document constitutes a Notice of a Finding of No Significant Impact (FONSI). The “Significance Criteria,” Section 12 of the Hawaii Administrative Rules, Title 11, Chapter 200, “Environmental Impact Statement Rules” were reviewed and analyzed. Based on the analysis, the following was concluded for each criteria (*italicized*).

*(1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resource.*

The proposed improvements are located within the boundaries of Kahului Commercial Harbor. The land area consists primarily of previously graded and filled land in an Urban land use

area. The specific area is covered with sparse introduced grasses that provide little, if any, habitat for native wildlife. No significant natural resources would be destroyed or lost. No surface cultural remains were identified on the site. If subsurface remains or sites are uncovered, work will stop and these resources will be evaluated by State archaeologists for their significance and a determination made as to their disposition.

The area for the improvements for Pier 1D, Pier 3 and Pier 4 are submerged areas which have been disturbed by previous Harbor construction and will not have an impact on natural or cultural resources.

*(2) Curtails the range of beneficial uses of the environment.*

The action will not curtail the range of beneficial uses of the environment. Instead it will allow the Harbor to meet existing and forecast demands and benefit the local economy. Also the dredging will allow the OPA 90 petroleum vessels to use Kahului Commercial Harbor in an efficient and cost effective manner.

*(3) Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.*

The proposed action does not conflict with the State's long-term environmental policies or goals and guidelines. The State's environmental policies and guidelines are set forth in Chapter 344, Hawaii Revised Statutes, "State Environmental Policy." Two broad policies are espoused, conservation of natural resources and enhancement of the quality of life. With regard to the former, the proposed project would not consume significant natural resources. With regard to the latter, it will provide a port that will be able to meet the existing and forecast demand and allow the import and export of goods that are needed and requested by the State's population.

*(4) Substantially affects the economic welfare, social welfare, and cultural practices of the community or State.*

The proposed action will provide a positive effect on the economic and social welfare of the community in allowing the efficient import and export of goods at the port. In addition, with the growth in the cruise ship industry, the proposed actions will provide facilities for these activities to continue and co-exist with other Harbor users. The no-action alternative will have a detrimental affect to the economic welfare of the community, as goods and passengers which flow through the



harbor would be delayed. In addition, if the harbor basin is not dredged it will severely limit the ability to transport bulk petroleum products to Maui. The proposed improvements will not have a significant impact on cultural practices of the community or the state.

*(5) Substantially affects public health.*

The proposed action does not impact public health or public health facilities.

*(6) Involves substantial secondary impacts, such as population changes or effects on public facilities.*

The proposed action is not expected to have any secondary impacts. The proposed project is not expected to result in any foreseeable changes or effects on population or public facilities. The proposed action is planned to meet the forecast needs of Maui.

*(7) Involves a substantial degradation of environmental quality.*

No significant degradation of environmental quality is anticipated and no adverse environmental impacts are expected. Short-term construction noise, air quality and construction traffic would have a minor impact on the nearby surroundings. There will be impact on the water quality inside of the construction barriers, but mitigation measures shall prevent impact to the areas surrounding the construction sites.

*(8) Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions.*

The proposed action does not involve a commitment to larger actions, nor would the cumulative impacts result in considerable effects on the environment. The proposed action is self-contained and of independent utility. The incremental impact of the action when added to past, present and reasonably foreseeable future actions has been considered. The proposed action is independent and not a commitment to the future long-term actions represented in the 2025 Kahului Commercial Harbor Master Plan.

*(9) Substantially affects a rare, threatened, or endangered species, or its habitat.*

No rare, threatened, or endangered species or their habitats would be affected. There are no rare, threatened or endangered species on the site. The site is located within Kahului Harbor and within a developed area.

*(10) Detrimentially affects air or water quality or ambient noise levels.*

Air quality, water quality, and ambient noise would not be detrimentally affected in the long-term. Construction activities may have the potential to affect air quality, water quality and ambient noise levels on a short-term basis. Engineering controls would be incorporated into the proposed project to minimize the impacts and to ensure regulatory compliance.

*(11) Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.*

The project will comply with development standards for construction in the flood and tsunami zone. Grading of the project would ensure that there would be no runoff, however, there will be runoff from the piers. Therefore, best management practices will be implemented to the maximum extent practical to control stormwater runoff and to prevent pollutants from discharging off the project site during construction and during harbors operations.

*(12) Substantially affects scenic vistas and viewplanes identified in county or state plans or studies.*

The proposed improvements, preferred alternative, are within the Kahului Harbor Historical District, but will not have any impact on this Historical Site. There will be no effect on scenic vistas or view-planes in county or State plans or studies. The proposed project does not have a direct impact on vistas or view-planes.

*(13) Requires substantial energy consumption.*

The proposed project will not require substantial energy consumption. The majority of the energy used would be during construction and would be a short-term impact. Energy-conserving measures will be incorporated into the project design, as practical.

## SECTION 6.0

### LIST OF PREPARERS

The following are the persons responsible for the preparation of this document.

#### CONSULTANT

The following is a list of the members of the consultant team which prepared the EA.

**Prime Consultant** - Edward K. Noda and Associates, Inc.

- Mr. Brian T. Ishii, P.E., Principal-in-Charge  
Education: B.S., University of Hawaii, 1978, Civil Engineering  
M.S., University of Hawaii, 1982, Ocean Engineering  
Twenty years of engineering experience with fifteen years of experience in master planning and environmental planning. Recent projects include master plans and environmental studies for Honolulu International Airport, Kalaupapa Airport, Dillingham Airfield, and Kahului Airport.
- Mr. Aaron H. Setogawa, Environmental Planner  
Education: B.A., Columbia University, 1974, American History  
Graduate Studies: Urban and Regional Planning, Pratt Institute; Law, University of Hawaii  
Twelve years of planning experience with three years of experience in master planning and environmental planning of airports. Recent projects include the Stormwater Monitoring Program for Honolulu International Airport and the Environmental Assessment for the Department of Transportation, Highways Division's Kauai District Baseyard Complex.
- Mr. Dayton E. Fraim, P.G., P.E., Civil Engineer  
Education: B.Sc. in Geology and Geophysics, University of Hawaii, 1973  
  
Twenty years of experience in geotechnical engineering, groundwater hydrology, and environmental work. Among his prior projects was the coordination of soil and materials handling and remediation at the Reef Runway Soil Management Facility at the Honolulu International Airport.

**Archaeology, Historical and Cultural Resources Studies** - International Archaeological Research Institute, Inc. (IARI). Establish in 1984, IARI has completed over ninety projects in Hawaii.

**Water Quality** - Oceanic Institute. The Oceanic Institute is a nonprofit research foundation dedicated to the advancement and transfer of technology in aquaculture, marine sciences and the environment. The Oceanic Institute performs basic research and provides professional services. The majority of the environmental and analytical services are provided by the Fisheries and Environmental Sciences Program, one of six departments within the Institute.

**Infrastructure** - R.T. Tanaka Engineers, Inc. Established in 1977 with expertise in infrastructure design, transportation system design and land surveys.

## SECTION 7.0 REFERENCES

1. State of Hawaii, Department of Transportation, Harbors Division, *Kahului Commercial Harbor, 2025 Master Plan*, September 2000.
2. State of Hawaii, Department of Transportation, Harbors Division, *Final Environmental Assessment, Finding of No Significant Impact, Kahului Inter-island Cargo Facility*, December 8, 1997.
3. United States Department of Agriculture, *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii*, August 1972.
4. SMS Research and Marketing Services, Inc., *Economic Impact Assessment of Hawaii's Harbors*, 1997.
5. U.S. Department of Transportation, Federal Aviation Administration and State of Hawaii, Department of Transportation, Airports Division, *Final Environmental Impact Statement*, September 1997.
6. Letter State of Hawaii, Department of Land and Natural Resources, Historic Preservation Division to International Archaeological Research Institute, Inc., Log No. 2003.1980, Doc. No. 0310MK06.
7. Letter State of Hawaii, Department of Land and Natural Resources, Historic Preservation Division to Department of Transportation, Harbors Division, Log No. 2004.0954, Doc. No. 0403st17, March 31, 2004.
8. State of Hawaii, Department of Transportation, Harbors Division, "*Final Environmental Assessment, Pier 1C Extension, Kahului Commercial Harbor*," January 2000.
9. R.M. Towill Corporation, "*Final Environmental Assessment, Kahului Commercial Harbor, Pier 1C Mooring Dolphin*," March 2004.
10. U.S. Army Corps of Engineers, Honolulu District, "*Maui Second Commercial Harbor Navigation Study*," April 1995.
11. Website, <http://hawaiiisuperferry.com/>, 2004.

12. Phillip Rowell and Associates, "*Traffic Impact Assessment for Hobron Triangle Retail Development*," July 10, 2004.
13. State of Hawaii, Department of Agriculture, Plant Quarantine Branch, "*Kahului Airport Pest Risk Assessment*," November 2002.
14. USGS, "*Recent Hydrologic Conditions, Iao and Waihee Aquifer Areas, Maui, Hawaii (summary)*," November 2004.
15. Ernest K. Hirata and Associates, Inc, "*Soils Investigation Barge Terminal Improvements Phase IB & II, Kahului Harbor, Kahului, Maui, Hawaii*," November 5, 1997.
16. Walter Lum Associates, Inc., "*Bulkhead and Other Improvements at Kahului Harbor, Maui, Job H.C. 3046, Soil Exploration Report*," December 12, 1975.

## **SECTION 8.0**

### **LIST OF AGENCIES, ORGANIZATIONS AND INDIVIDUALS CONSULTED**

#### **8.1 PRE-CONSULTATION**

The agencies and organizations listed below were contacted during the preconsultation phase of the Environmental Assessment. The agencies and organizations which are marked with an asterisk (\*) also participated in the Kahului Commercial Harbor 2025 Master Plan working meetings.

#### **U.S. Government Agencies**

United States Army Corps of Engineers, Honolulu Engineers District \*

#### **State of Hawaii Agencies**

Department of Business, Economic Dev. & Tourism, Office of Planning

Department of Health

Department of Land and Natural Resources

Department of Land and Natural Resources, Division of Boating & Ocean Recreation \*

Department of Land and Natural Resources, State Historic Preservation Division

Department of Transportation, Airports Division

Department of Transportation, Committee on Transportation

Department of Transportation, Harbors Division

Office of Hawaiian Affairs

#### **County of Maui Agencies**

OPWWM \*

County Council

Council Member Dain Kane \*

Department of Parks and Recreation \*

Department of Public Works and Waste Management

Department of Water Supply

Office of Economic Development \*

Department of Planning \*

## **Private Agencies and Organizations, and Individuals**

A & B Properties \*

American Hawaii Cruises/United States Line \*

Ameron Hawaii \*

Brewer Environmental Industries LLC \*

Chevron USA, Inc.

CSX Lines \*

DeCoite Trucking \*

Equilon Enterprises LLC, Formerly Shell Oil Company \*

First Hawaiian Bank, Kahului Branch

Gas Company

H.A.L. Westours \*

HC&S \*

Haleakala Storage & Transfer, Inc., A Division of Tri-Isle, Inc.

Harbor Lights Condominium

Hawaiian Canoe Club \*

Hawaiian Cement \*

Island Movers, Inc. \*

Kahului Trucking & Storage \*

Lanai Oil \*

MHR – Maui(McCabe Hamilton & Renny Co., Ltd.) \*

Matson Navigation Company \*

Maui Beach Hotel

Maui Chamber of Commerce \*

Maui Contractors Association \*

Maui County Farm Bureau \*

Maui Economic Development Board \*

Maui Electric Company \*

Maui Hotel Association \*

Maui Land and Pineapple Company, Inc. \*

Maui Oil Company, Inc. \*

Maui Petroleum, Inc.

Maui Trailer Boat Club \*

Polynesian Adventure Tours \*

Paul, Johnson, Park & Niles Attorneys at Law Corp. \*

Roberts Hawaii \*

Sause Brothers Ocean Towing Co., Inc. \*

Sniffen's Express, Inc. \*

Tesoro \*



Trans Hawaiian \*  
Valley Isle Motors \*  
Valley Isle Produce  
VIP Produce  
Wailuku Main Street Association \*  
Waldron Steamship \*  
Young Brothers \*

## 8.2 AGENCIES, ORGANIZATIONS AND INDIVIDUALS RECEIVING DRAFT ENVIRONMENTAL ASSESSMENT

The following organizations, agencies and individuals were provided copies of the Draft Environmental Assessment for their review and comment. Those parties that provided comments are marked with an asterisk (\*) and their written comments and the DOT response letters are presented in Appendix E.

### **STATE OF HAWAII**

Kahului Public Library  
Department of Business, Economic Development and Tourism, Office of Planning  
Department of Health (3 copies)  
Department of Land and Natural Resources (5 copies) \*  
Department of Land and Natural Resources, Historic Preservation Division  
Office of Hawaiian Affairs  
Office of Environmental Quality Control\*

### **COUNTY OF MAUI**

Department of Planning \*  
Department of Parks and Recreation\*  
Department of Public Works\*  
Department of Water Supply\*

### **ORGANIZATIONS AND INDIVIDUALS**

Dowling Company  
Charles Toguchi  
Dean Frampton (project description only)\*  
Karen Chun, Malama Customs Paddles and Na Kai Ewalu\*  
David Niles  
Jeff Parker, Tropical Orchid Farms\*  
Jan Roberson, Surfrider Foundation\*

### 8.3 LIST OF AGENCIES, ORGANIZATIONS AND INDIVIDUALS COMMENTING ON DRAFT ENVIRONMENTAL ASSESSMENT

The following is a list of the agencies, organizations and individuals which sent comment letter on the Draft Environmental Assessment. Those marked with \*\* are those which had no comment. The comment letters and response letters are presented in Appendix E. The most common issues in the comments letters are:

- Alien Species Introduction
- Superferry - growth impacts
  - Traffic
  - Drug trafficking
- Cultural Impacts of Pier 2C

### **LIST OF AGENCIES, ORGANIZATIONS AND INDIVIDUALS PROVIDING WRITTEN COMMENTS TO THE DRAFT ENVIRONMENTAL ASSESSMENT**

#### **STATE OF HAWAII**

Dierdre S. Mamiya, Administrator, Department of Land and Natural Resources, Land Division  
Department of Land and Natural Resources, Commission on Water Resource Management  
Administrator\*\*  
Department of Land and Natural Resources, Division of Forestry and Wildlife Administrator  
Department of Land and Natural Resources, Division of Aquatic Resources Chief Engineer  
Department of Land and Natural Resources, Engineering Division  
Department of Land and Natural Resources Land – Maui District Land Office\*\*  
Department of Land and Natural Resources, Division of State Parks\*\*  
Genevieve Salmonson, Director, Office of Environmental Quality Control

#### **COUNTY OF MAUI**

Glenn T. Correa, Director, Department of Parks and Recreation\*\*  
Michael W. Foley, Department of Planning  
George Y. Tengan, Director, Department of Water Supply  
Alan M. Arakawa, Mayor, Office of the Mayor  
Robert Parsons, Executive Assistant for Environmental Concerns

## **AGENCIES, ORGANIZATIONS AND INDIVIDUALS**

List of Paddlers supporting the preservation of Kahului Harbor

Daniel Grantham, Chair, Sierra Club Maui

David Ward, Frampton & Ward, LLC

Dean Kimo Frampton

Dick Mayer

Dudley Smith, Smith Builders

Emalia Brown

Frank Gummich

Greg and Masako Westcott

Gregory Ball

Hawaiian Kamali'i Inc. , dba Hawaiian Canoe Club

Mary Akiona, Executive Director

Iokepa K. Naeole, Cultural Director

Students of Hui Malama Home School

Richard P. Nu'u, Head Coach – Men's Program

Ted Fritzen, President

Isaac Davis Hall, Attorney At Law, for the Kahului Harbor Coalition, Jeffery Parker, Gregory Westcott, et.al.

Jan Roberson, MPA, Maui Chapter Chair, The Surfrider Foundation

Jeffrey Parker, President, Tropical Orchid Farm, Inc

John B. Guard IV, Broker in Charge, Coldwell Banker Island Properties

Karen Chun

Kay Badayos

Keri C. Mehling, President, Maui County Hawaiian Canoe Association

Kekoa Catherine Enomoto

Mark Sheehan

Patty Rycroft

Roger Crouse

Rory Frampton

Sally Raisbeck

Stewart Kawakami

Walter B. Quisenberry

Zoe Norcross-Nu'u

## 8.5 LIST OF AGENCIES, ORGANIZATIONS AND INDIVIDUALS REQUESTING TO BE CONSULTED PARTY (IF AN ENVIRONMENTAL IMPACT STATEMENT IS PREPARED)

The following parties have requested to be consulted parties<sup>12</sup>. However, the consulted party status is only applicable to the preparation of an Environmental Impact Statement (IS). Therefore, if an is prepared, these agencies, organizations and individuals should request to be consulted parties at that time. However, at this point in time, the determination is to be a Finding of No Significant Impact and an EIS will not be prepared.

Daniel Grantham, Chair, Sierra Club Maui

Mark Sheehan

Sally Raisbeck

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<sup>12</sup> Consulted parties under the HRS 343 are applicable to Environmental Impact Statements and are defined under the Hawaii Administrative Rules, 11-200-15 (2).

## **APPENDIX A**

### **PRE-CONSULTATION COMMENTS**





STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P.O. BOX 3378  
HONOLULU, HAWAII 96801

In reply, please refer to:  
File:

02-242/epo

October 22, 2002

Mr. Brian T. Ishii  
Edward K. Noda & Associates, Inc.  
615 Piikoi Street, Suite 300  
Honolulu, Hawaii 96814-3139

Dear Mr. Ishii:

Subject: Pre-Consultation Environmental Assessment (PEA) Request  
Kahului Commercial Harbor Master Plan  
Tax Map Keys: 3-7-010:021, 22; 3-7-10:002, 3, 6, 13, 15, 21, 22, 24, 26, 27, 28,  
30, 32, 34; 3-7-008:002, 3, 4, & 6.

Thank you for the opportunity to review and comment on the subject proposal. The PEA was routed to the various branches of the Environmental Health Administration. We have the following comments:

Clean Water Branch (CWB)

1. The Army Corps of Engineers should be contacted to identify whether a Federal permit (including a Department of the Army permit) is required for this project. If it is determined that a Federal permit is required for the subject project, then a Section 401 Water Quality Certification would also be required from the Clean Water Branch;
2. If the project, during construction involves any of the following activities, a National Pollutant Discharge Elimination System (NPDES) permit is required for each of these activities:
  - a. Construction activities, including clearing, grading, and excavation that result in the disturbance of equal to or greater than five (5) acres of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale;  
*Note: After March 10, 2003, an NPDES permit will be required for construction activities, including clearing, grading, and excavation that result in the disturbance of one (1) acre or more.*

- b. Discharge of hydro-testing water;
  - c. Discharge of treated construction dewatering effluent.
3. The Clean Water Branch requires that Notice of Intent (NOI) for NPDES general permits be submitted 30 days before the commencement of the respective activities. The proposed amendments to HAR, Chapter 11-55, may require a copy of the NOI or NPDES permit application to be submitted to the State Department of Land and Natural Resources, State Historic Preservation Division. NOI forms can be picked up at our office or downloaded from our website at <http://www.state.hi.us/doh/eh/cwb/forms/index.html>.

If you have any questions, please contact Shane Sumida of the Clean Water Branch, Engineering Section, at (808) 586-4309.

#### Safe Drinking Water Branch (SDWB)

It is our understanding that the Kahului Harbor is regulated as an interstate watering point by the United States Food and Drug Administration. All water distribution piping within these facilities must be carefully designed and constructed to prevent cross connections and backflow conditions and to protect the quality of its drinking water supply.

If you have any questions, please contact William Wong, Safe Drinking Water Branch, at (808) 586-4258.

#### Wastewater Branch (WWB)

All project facilities are required to utilize the county sewer system. All wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." We reserve the right to review the detailed wastewater plans for conformance to applicable rules.

If you have any questions, please contact the Wastewater Branch at (808) 586-4294.

#### Noise, Radiation and Indoor Air Quality (NRIAQ) Branch

All project activities shall comply with the Administrative Rules of the Department of Health, Chapter 11-46, on "Community Noise Control."

If you have any questions, please contact the NRIAQ at (808) 586-4701.



Environmental Planning Office (EPO)

Kahului Bay (inshore of breakwater) is currently listed under section 303(d) of the Clean Water Act as being impaired by nutrients and turbidity. The impaired status of these waters requires that the Department of Health establish Total Maximum Daily Loads (TMDLs) suggesting how much the existing pollutant loads should be reduced in order to attain water quality standards in the stream and coastal waters.

Although these TMDLs are yet to be established and implemented, a first step in achieving TMDL objectives would be to prevent any project-related increases in pollutant loads. The proposed pier construction (Pier 4), extensions (Piers 1 and 2C), expansion (pier 3), and other improvements (Pier 1) may result in both short-term (construction phase) and long-term (operational phase) increases in pollutant loading of Kahului Bay waters. We suggest that the Environmental Assessment identify the sources of pollutant loads entering Kahului Bay; calculate expected changes in post-project pollutant loading patterns and levels; and propose management measures that would maintain the short- and long-term magnitude of pollutant loads at pre-project levels.

We encourage the Department of Transportation, Harbors Division, to participate in the TMDL process and suggest that they consult with the Department of Health Clean Water Branch (Engineering Section) to discuss how water pollution control permitting may be linked with TMDL implementation.

If you have any questions about the Total Maximum Daily Load program, please contact David Penn, Environmental Planning Office, at (808) 586-4337.

Sincerely,



GARY GILL  
Deputy Director  
Environmental Health Administration

c: CWB  
WWB  
NRFAQ



Mr. Brian T. Ishii

Edward K. Noda and Associates  
615 Piikoi Street, Suite 300  
Honolulu, HI 96814

Dear Sir:

I am in receipt of your letter regarding the proposed additions/improvements at Kahului Harbor. As President of the AOA Harbor Lights, a 352 unit condominium project adjacent to the harbor, I would like to offer these comments:

For quite some time now, the residents at Harbor Lights have been plagued with a rotting seaweed problem. Each summer, the rise in temperature seems to result in a massive seaweed bloom. This seaweed is then washed up on shore, where it rots. The resulting smell is quite strong and has resulted in some residents seeking medical help for throat and nasal irritations.

The County of Maui has contracted firms to remove the seaweed, however, in its limited budget the residents oftentimes find themselves just having to put up with the smell.

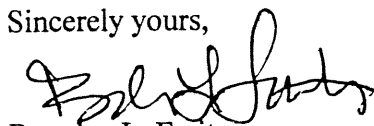
I have met with County officials, who tell me that the bloom in the ocean is the State's responsibility, when it reaches the shore, it then becomes the county's responsibility. It seems that the State is not interested in this problem, and the County, at best, is ill equipped to deal with the rotting seaweed.

Of couses, picking the seaweed up is only half the problem. In a subsequent meeting, I had the good fortune to talk to Sjippy Hao of the DLNR. His feeling is that this seaweed bloom is caused by a lack of movement in the water in the harbor. There is no way for the harbor to "flush itself out", thereby making conditions favorable for the blooms.

I would fervently hope that ANY changes to the harbor would result in a favorable solution to this problem. Our residents are suffering, and with limited solutions, we are frustrated by the dead end we run up against when tackling this problem.

In short, we ask that any change to the harbor would address this problem, and deal with it effectively. The value of our homes, and our residents health, are being jeopardized, and your expertise in attempting to correct this problem would be most appreciated.

Sincerely yours,



Brendan L. Freitas  
President, AOA Harbor Lights Condominium  
808-871-8602



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

LAND DIVISION  
P.O. BOX 621  
HONOLULU, HAWAII 96809

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
STATE PARKS  
WATER RESOURCE MANAGEMENT

October 7, 2002

LD-NAV

L-2205/2295/1746/2161/1899/1931/2084

KAHULUIHARBOR.RCM

Edward K. Noda & Associates, Inc.  
Brian T. Ishii  
615 Piikoi Street, Suite 300  
Honolulu, Hawaii 96814

Dear Mr. Ishii:

SUBJECT: Pre-Assessment Consultation - Job H.C.3334 (SOH DOT)  
Kahului Commercial Harbor 2025 Master Plan Environmental  
Assessment - TMK 3-7-1: 21, 22; 3-7-10 var. & 3-7-8: 2-6

Thank you for the opportunity to review and comment on the subject matter.

The Department of Land and Natural Resources' (DLNR) Land Division distributed a copy of your letter (summary) and location map covering the proposed project to the following DLNR Divisions for their review and comment:

- Division of Aquatic Resource
- Division of Forestry & Wildlife
- Division of State Parks
- Division of Boating and Ocean Recreation
- Commission on Water Resource Management
- Land Division Planning and Technical Services
- Land Division Engineering Branch
- Land Division Maui District Land Office
- Keith Chun (Land Division)

Attached herewith is a copy of the Commission on Water Resource Management, Division of Aquatic Resources and Maui District Land Office comments.

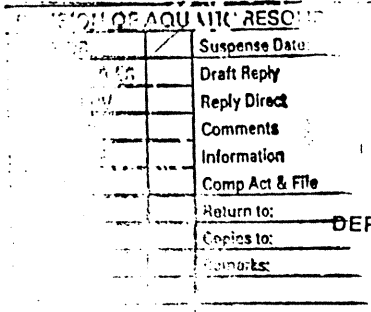
Based on the attached responses, the Department of Land and Natural Resources has no other comment to offer on the subject matter at this time.

Should you have any questions, please feel free to contact Nicholas A. Vaccaro of the Land Division at (808) 587-0384.

Very truly yours,

*Charlene E. Mamiya*  
DIERDRE S. MAMIYA  
Administrator

C: Maui District Land Office



HONOLULU, HAWAII 96809  
September 12, 2002

Date: 9/26/02



Suspense Date: 10/02/02

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
Division of Aquatic Resources  
Honolulu, Hawaii

MEMORANDUM

To: William Devick, Administrator  
Division of Aquatic Resources

From: Jo-Anne N. Kushima, Aquatic Biologist

Subject: Pre-Assessment Consultation  
Kahului Commercial Harbor 2025 Master Plan Environmental Assessment

Comments Requested By: Dierdre S. Mamiya, Administrator  
Land Division

Date of Request: 09/12/02

Date Received: 09/12/02

Summary of Project

Title: Pre-Assessment Consultation  
Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment Job H.C. 3334

Proj. By: Department of Transportation (SOH)

Location: Kahului, Maui, Hawaii

Brief Description:

The applicant is soliciting input from agencies, organizations and neighbors that have jurisdiction, expertise or other interests in the potential environmental impacts of the proposed improvements at Kahului Harbor. These improvements are part of a more extensive plan proposed in the 2025 Master Plan to provide safe and efficient harbor operations beyond the year 2025.

At the present time, the Department of Transportation (DOT), Harbors Division proposes to undertake the following necessary improvements within the next 5 years; extension at Pier 1, a Pier 1 comfort station and sewer line, Pier 3 expansion, a new Pier 4 and a Pier 2C extension which will include a passenger terminal.

Comments:

We suggest the forthcoming DEIS discuss in detail, any potential short term impacts, and propose specific measures for averting or minimizing adverse effects as well as provide possible mitigation for unavoidable damage to natural resource values. Further, the applicant should describe potential hazards to the public from the structures and mitigation measures proposed, to protect fishermen, boaters and other recreational users who share the area of the proposed improvements.

All proposed shoreline improvements or seaward modifications should be adequately described in the DEIS and the Department should have the opportunity to review all activities that may require conditions or restrictions.

As for our concerns regarding the necessary improvements that DOT proposes to undertake within the next 5 years; these improvements will be done in already highly modified areas of Kahului Harbor. Because of this, they are not likely to diminish existing aquatic resource values in the immediate areas of the proposed improvements. As a precautionary measure, during the improvements, however, we recommend that any/all fabrication and/or treatment of the materials being used for the improvements be done on fast land so that any paint, antifoulant or similar bioactive materials used for the improvements will have adequate drying or detoxifying time before being installed near the water.

As always, the applicant should take precautions during the improvement activity to prevent disturbed soil, debris, trash, petroleum products and other contaminants or toxic substances from entering the aquatic environment.

Thank you for providing us the opportunity to review and comment on the above proposed project.





STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

P.O. BOX 621

HONOLULU, HAWAII 96809

September 12, 2002

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
STATE PARKS  
WATER RESOURCE MANAGEMENT

LD/NAV  
Ref.: KAHULUIHARBOR.CMT

L-1746  
Suspense Date: 10/2/02

MEMORANDUM:

TO: XXX Division of Aquatic Resources  
XXX Division of Forestry & Wildlife  
Na Ala Hele Trails  
XXX Division of State Parks  
XXX Division of Boating and Ocean Recreation  
XXX Commission on Water Resource Management  
Land Division Branches of:  
XXX Planning and Technical Services  
XXX Engineering Branch  
✓ XXX Maui District Office  
✓ XXX Keith Chun

FROM: Dierdre S. Mamiya, Administrator *Challene*  
Land Division

SUBJECT: Pre-Assessment Consultation - Job H.C.3334 (SOH DOT)  
Kahului Commercial Harbor 2025 Master Plan Environmental  
Assessment - TMK: 3-7-1: 21, 22; 3-7-10 var. & 3-7-8: 2-6  
Consultant: Edward K. Noda & Associates (Brian T. Ishii)

Please review the attached letter (summary) and map covering the subject matter and submit your comments (if any) on Division letterhead signed and dated within the time requested above.

If you have any questions, please contact Nicholas A. Vaccaro at ext.: 7-0384.

If this office does not receive your comments on or before the suspense date, we will assume there are no comments.

(✓) We have no comments.

( ) Comments attached.

Signed: *KGC*

Date: *9-25-02*



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

LAND DIVISION

P.O. BOX 621

HONOLULU, HAWAII 96809

September 12, 2002

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
STATE PARKS  
WATER RESOURCE MANAGEMENT

LD/NAV

Ref.: KAHULUIHARBOR.CMT

L-1746

Suspense Date: 10/2/02

MEMORANDUM:

TO: XXX Division of Aquatic Resources  
XXX Division of Forestry & Wildlife  
Na Ala Hele Trails  
XXX Division of State Parks  
✓ XXX Division of Boating and Ocean Recreation  
XXX Commission on Water Resource Management  
Land Division Branches of:  
XXX Planning and Technical Services  
XXX Engineering Branch  
XXX Maui District Office  
XXX Keith Chun

FROM: Dierdre S. Mamiya, Administrator *Challene*  
Land Division

SUBJECT: Pre-Assessment Consultation - Job H.C.3334 (SOH DOT)  
Kahului Commercial Harbor 2025 Master Plan Environmental  
Assessment - TMK: 3-3-1: 21, 22; 3-7-10 var. & 3-7-8: 2-6  
Consultant: Edward K. Noda & Associates (Brian T. Ishii)

Please review the attached letter (summary) and map covering the subject matter and submit your comments (if any) on Division letterhead signed and dated within the time requested above.

If you have any questions, please contact Nicholas A. Vaccaro at ext.: 7-0384.

If this office does not receive your comments on or before the suspense date, we will assume there are no comments.

( ) We have no comments.

( ) Comments attached.

Signed:

Date:

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



O'LBERT S. COLOMA-AGARAN  
CHAIRPERSON

BRUCE S. ANDERSON  
MEREDITH J. CHING  
CLAYTON W. DELA CRUZ  
BRIAN C. NISHIDA  
HERBERT M. RICHARDS, JR.

LINNEL T. NISHIOKA  
DEPUTY DIRECTOR

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
P.O. BOX 621  
HONOLULU, HAWAII 96809

September 30, 2002

TO: Ms. Dede Mamiya, Administrator  
Land Division

FROM: Linnel T. Nishioka, Deputy Director  
Commission on Water Resource Management (CWRM)

SUBJECT: Kahului Harbor 2025 Master Plan EA

FILE NO.: KAHULUIHARBOR.CMT

Thank you for the opportunity to review the subject document. Our comments related to water resources are marked below.

In general, the CWRM strongly promotes the efficient use of our water resources through conservation measures and use of alternative non-potable water resources whenever available, feasible, and there are no harmful effects to the ecosystem. Also, the CWRM encourages the protection of water recharge areas, which are important for the maintenance of streams and the replenishment of aquifers.

- ☒ We recommend coordination with the county government to incorporate this project into the county's Water Use and Development Plan.
- ☒ We recommend coordination with the Land Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.
- ☐ We are concerned about the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.
- ☐ A Well Construction Permit and/or a Pump Installation Permit from the Commission would be required before ground water is developed as a source of supply for the project.
- ☐ The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit from the Commission would be required prior to use of this source.
- ☐ Groundwater withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
- ☐ We are concerned about the potential for degradation of instream uses from development on highly erodible slopes adjacent to streams within or near the project. We recommend that approvals for this project be conditioned upon a review by the corresponding county's Building Department and the developer's acceptance of any resulting requirements related to erosion control.
- ☐ If the proposed project includes construction of a stream diversion, the project may require a stream diversion works permit and amend the instream flow standard for the affected stream(s).
- ☐ If the proposed project alters the bed and banks of a stream channel, the project may require a stream channel alteration permit.
- ☒ OTHER:

The aquifer that serves as the water supply source for this project has been overpumped beyond its sustainable yield in the recent past, and the aquifer continues to show signs it has not fully recovered. If the Commission has to designate the aquifer as a water management area, all ground-water withdrawals to the purveyor would be subject to water use permits. The service area would be subject to a declaration of a water shortage or a water emergency. If withdrawals are constrained, uses may be subject to allocation to users by the purveyor.

If there are any questions, please contact Charley Ice at 587-0251.



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION  
P.O. BOX 621  
HONOLULU, HAWAII 96809  
September 12, 2002

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
STATE PARKS  
WATER RESOURCE MANAGEMENT

LD/NAV

Ref.: KAHULUIHARBOR.CMT

L-1746

Suspense Date: 10/2/02

MEMORANDUM:

TO: ☒ XXX Division of Aquatic Resources  
☒ XXX Division of Forestry & Wildlife  
Na Ala Hele Trails  
XXX Division of State Parks  
XXX Division of Boating and Ocean Recreation  
XXX Commission on Water Resource Management  
Land Division Branches of:  
XXX Planning and Technical Services  
XXX Engineering Branch  
XXX Maui District Office  
XXX Keith Chun

FROM: Dierdre S. Mamiya, Administrator *Chalene*  
Land Division

SUBJECT: Pre-Assessment Consultation - Job H.C.3334 (SOH DOT)  
Kahului Commercial Harbor 2025 Master Plan Environmental  
Assessment - TMK: 3-~~7~~-1: 21, 22; 3-7-10 var. & 3-7-8: 2-6  
Consultant: Edward K. Noda & Associates (Brian T. Ishii)

Please review the attached letter (summary) and map covering the subject matter and submit your comments (if any) on Division letterhead signed and dated within the time requested above.

If you have any questions, please contact Nicholas A. Vaccaro at ext.: 7-0384.

If this office does not receive your comments on or before the suspense date, we will assume there are no comments.

☒ We have no comments.

( ) Comments attached.

Signed: *M. Mamiya*

Date: *DOFAW Administrator*

*9/16/02*



STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING, ROOM 555  
801 KAMOKILA BOULEVARD  
KAPOLEI, HAWAII 96707

GILBERT S. COLOMA-AGARAN, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCES MANAGEMENT

DEPUTIES  
ERIC T. HIRANO  
LINNEL NISHIOKA

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
COMMISSION ON WATER RESOURCE  
MANAGEMENT  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND  
STATE PARKS

October 3, 2002

Mr. Brian T. Ishii  
Edward K. Noda and Associates, Inc.  
615 Pi'ikoi Street, Suite 300  
Honolulu, Hawaii 96814

LOG NO: 30875 ✓  
DOC NO: 0210CD03

Dear Mr. Ishii,

**SUBJECT:** Chapter 6E-8 Historic Preservation Review Pertaining to the  
Pre-Assessment Consultation for the Proposed Kahului  
Commercial Harbor 2025 Master Plan Environmental Assessment  
(Job H.C. 3334)  
Wailuku Ahupua`a, Wailuku District, Island of Maui  
TMK: (2) 3-7-001:0221, 022; 3-7-010:002, 003, 006, 013, 015, 021, 022,  
024, 026, 027, 028, 030, 032, 034; & 3-7-008:002, 003, 004, & 006

Thank you for the opportunity to review and provide comments pertaining to the Pre-Assessment Consultation for the proposed Kahului Commercial Harbor 2025 Master Plan Environmental Assessment, which was received by our staff September 11, 2002. Based on the submitted document, we understand the proposed improvements will consist of the extension of Pier 1, the construction of Pier 1 comfort station and sewer line, the expansion of Pier 3, a new Pier 4, and the extension of Pier 2C, which will include a passenger terminal.

The proposed project area is located within the boundaries of the Historic Kahului District (State Site 50-50-04-1607) and the Historic Kahului Harbor (State Site 50-50-04-2953). This area comprises the early seaport and harbor, railroad facilities, the First Hawaiian Bank, school, and the fairgrounds.

A search of our records indicates Garcia and Associates conducted an acceptable archaeological inventory survey, including subsurface testing, of TMK: (2) 3-7-008: 001, 003, portion of 004, and 006, in 1997 (SHPD DOC NO.: 9704SC09/LOG NO.: 19280). During the survey a subsurface cultural deposit was identified. Given the findings of this survey, it appears that intact sand deposits and historic artifact concentrations are present discontinuously throughout this area. Therefore, we agreed with the report's recommendation for archaeological monitoring to occur during ground altering activities conducted in this area.

Our records indicate that the portion of TMK: (2) 3-7-010: 002, which is adjacent to Ka'ahumanu Avenue and Hobron Avenue is a currently vacant lot and has not undergone an archaeological inventory survey. Given the close proximity of this area to

Mr. Brian T. Ishii  
Page 2

the railroad roundhouse and the above-mentioned historic properties, we believe it is possible that historic sites and/or remnants of historic sites may be present in the subsurface deposits.

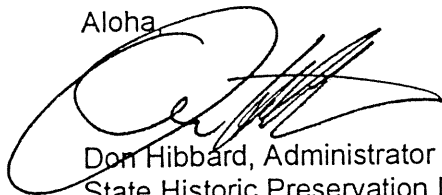
The USDA Soil Survey indicates that TMK: (2) 3-7-001:021 and 022 are in imported fill deposits, as are Pier 1, Pier 2C, Pier 3, and Pier 4. Therefore, we believe subsurface historic sites will not be impacted in these areas. Given the above information, we believe the proposed undertaking will have "no effect" on significant historic sites in these areas.

Given the above information we make the following recommendations:

- 1) A qualified archaeological monitor be present during all ground-altering activities to occur in TMK: 3-7-008: 001,003, portion of 004, and 006 in order to identify and document any historic properties which may be encountered during the proposed undertaking and to provide appropriate mitigation measures as necessary. An acceptable monitoring plan shall be submitted to the State Historic Preservation Division, prior to the commencement of any ground-altering activities. A report documenting the findings of the monitoring activities shall be submitted to that Division office for review and acceptance upon 180 days following the completion of the proposed undertaking. This should mitigate any adverse effects to significant sites which may be present.
- 2) An archaeological inventory survey shall be conducted on parcel (2) 3-7-010: 002, which is adjacent to Ka`ahumanu Avenue and Hobron Avenue to determine whether significant historic sites are present. An acceptable report documenting the findings of the survey shall be submitted to the State Historic Preservation Division. If significant historic sites are identified, a mitigation plan may need to be developed, in consultation with that Division. If so, that plan shall be executed prior to land alteration, with the State Historic Preservation Division verifying in writing to the County that the plan has been successfully carried out.

If you have any questions, please call Cathleen Dagher at (808) 692-8023.

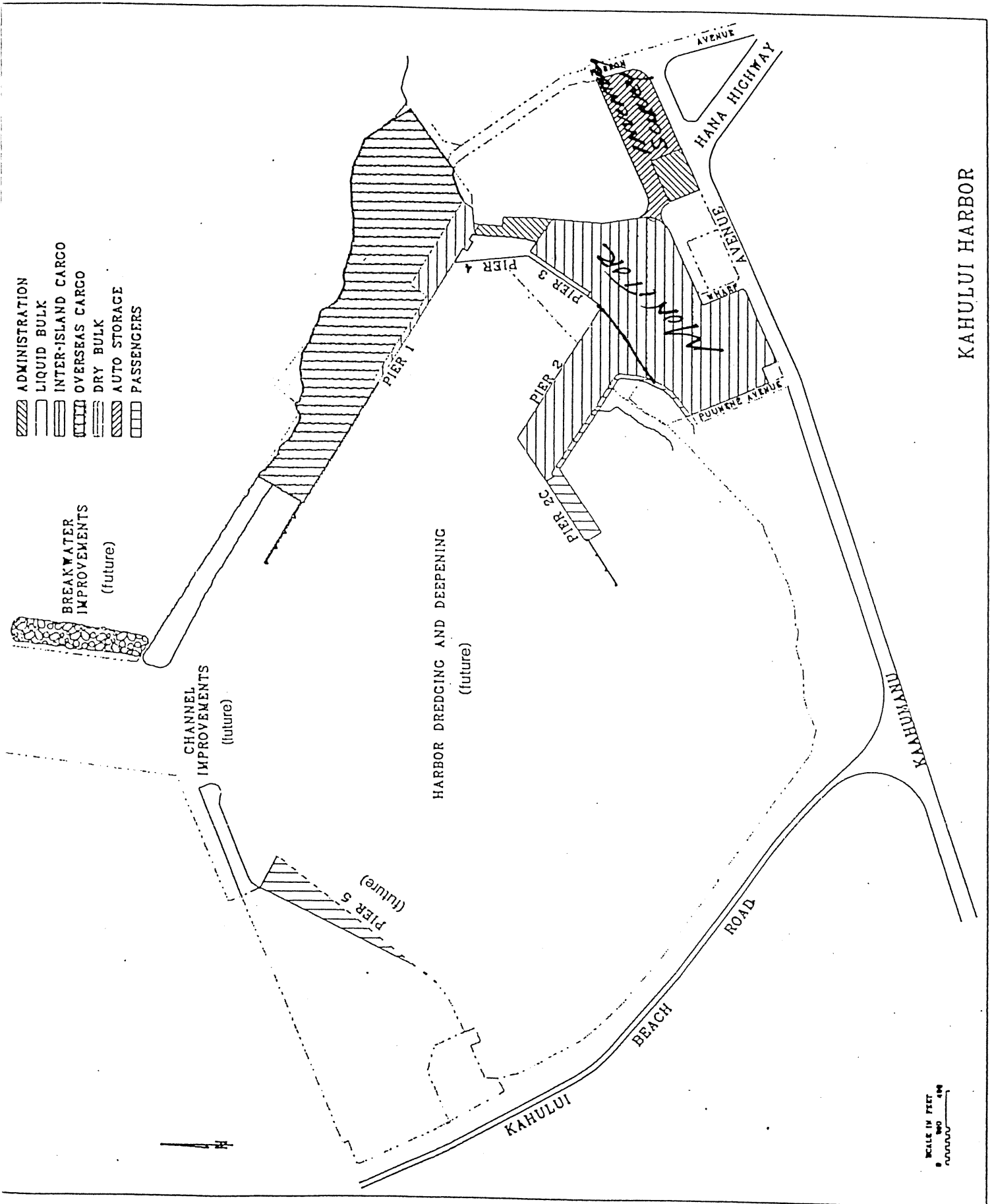
Aloha



Don Hibbard, Administrator  
State Historic Preservation Division

CD:jen

attachment



KAHULUI HARBOR







RECEIVED  
DIVISION OF  
LAND MANAGEMENT

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
STATE PARKS  
WATER RESOURCE MANAGEMENT

STATE OF HAWAII 2002 SEP 16 PM 4:03  
DEPARTMENT OF LAND AND NATURAL RESOURCES

2002 SEP 27 10:15 AM  
LAND DIVISION  
P.O. BOX 621

HONOLULU, HAWAII 96809  
September 12, 2002

LD/NAV  
Ref.: KAHULUIHARBOR.CMT

L-1746  
Suspense Date: 10/2/02

MEMORANDUM:

TO: XXX Division of Aquatic Resources  
XXX Division of Forestry & Wildlife  
Na Ala Hele Trails  
XXX Division of State Parks  
XXX Division of Boating and Ocean Recreation  
XXX Commission on Water Resource Management  
Land Division Branches of:  
XXX Planning and Technical Services  
XXX Engineering Branch  
✓ XXX Maui District Office  
XXX Keith Chun

FROM: Dierdre S. Mamiya, Administrator *Challene*  
Land Division

SUBJECT: Pre-Assessment Consultation - Job H.C.3334 (SOH DOT)  
Kahului Commercial Harbor 2025 Master Plan Environmental  
Assessment - TMK: 3-7-1: 21, 22; 3-7-10 var. & 3-7-8: 2-6  
Consultant: Edward K. Noda & Associates (Brian T. Ishii)

Please review the attached letter (summary) and map covering the subject matter and submit your comments (if any) on Division letterhead signed and dated within the time requested above.

If you have any questions, please contact Nicholas A. Vaccaro at ext.: 7-0384.

If this office does not receive your comments on or before the suspense date, we will assume there are no comments.

( ) We have no comments.

( ✓ ) Comments attached.

Signed: *Jan K. Kye*

Date: 9-25-02



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION  
54 South High Street, Room 101  
Wailuku, Hawaii 96793-2198

AQUACULTURE DEVELOPMENT  
PROGRAM  
AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
STATE PARKS  
WATER RESOURCE MANAGEMENT

MEMORANDUM

Ref: KahuluiHarbor.CMT  
Author: MDLO\lhw

DATE: September 25, 2002

TO: Ms. Dierdre S. Mamiya  
Land Division Administrator

ATTN: Nicholas A. Vaccaro  
Land Agent

FROM: Jason K. Koga *J. Koga*  
Maui District Land Agent

SUBJECT: Pre-Assessment Consultation – Job H.C.3334 (SOH DOT)  
Kahului Commercial Harbor 2025 Master Plan Environmental Assessment  
TMK: (2) 3-7-10: 03, etc., Kahului, Maui

The Maui District Land Office has reviewed the 9/10/02 transmittal from Edward K. Noda and Associates, Inc., regarding the proposed improvements at Kahului Harbor within the next five years. The specific improvements consists of 1) Pier 1 extension; 2) Pier 1 comfort station and sewer line; 3) Pier 3 expansion; 4) a new Pier 4; and 5) Pier 2C extension, which includes a passenger terminal.

The above-proposed improvements will be on submerged or fast lands under EO Nos. 2635, 2746, 2986, 3005 and 3318 to the SOH DOT-Harbors Division.

We have no other comments at this time. Thank you for affording us the opportunity to review the application.

c: District Files



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

LAND DIVISION

P.O. BOX 621

HONOLULU, HAWAII 96809  
September 12, 2002

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
STATE PARKS  
WATER RESOURCE MANAGEMENT

LD/NAV  
Ref.: KAHULUIHARBOR.CMT

L-1746  
Suspense Date: 10/2/02

MEMORANDUM:

TO: XXX Division of Aquatic Resources  
XXX Division of Forestry & Wildlife  
Na Ala Hele Trails  
✓ XXX Division of State Parks  
XXX Division of Boating and Ocean Recreation  
XXX Commission on Water Resource Management  
Land Division Branches of:  
XXX Planning and Technical Services  
XXX Engineering Branch  
XXX Maui District Office  
XXX Keith Chun

FROM: Dierdre S. Mamiya, Administrator  
Land Division

SUBJECT: Pre-Assessment Consultation - Job H.C.3334 (SOH DOT)  
Kahului Commercial Harbor 2025 Master Plan Environmental  
Assessment - TMK: 3-7-1: 21, 22; 3-7-10 var. & 3-7-8: 2-6  
Consultant: Edward K. Noda & Associates (Brian T. Ishii)

Please review the attached letter (summary) and map covering the subject matter and submit your comments (if any) on Division letterhead signed and dated within the time requested above.

If you have any questions, please contact Nicholas A. Vaccaro at ext.: 7-0384.

If this office does not receive your comments on or before the suspense date, we will assume there are no comments.

(✓) We have no comments.

( ) Comments attached.

Signed:

Date: 9/17/02

RECEIVED  
2002 SEP 18 P 3:30



**STATE OF HAWAII**  
**OFFICE OF HAWAIIAN AFFAIRS**  
711 KAPI'OLANI BOULEVARD, SUITE 500  
HONOLULU, HAWAII 96813

HRD#02-747

September 17, 2002

Mr. Brian T. Ishii  
Edward K. Noda and Associates, Inc.  
615 Piikoi Street – Suite 300  
Honolulu, HI 96814

SUBJECT: PRE-ASSESSMENT CONSULTATION KAHULUI  
COMMERCIAL HARBOR 2025 MASTER PLAN  
ENVIRONMENTAL ASSESSMENT

Dear Mr. Ishii:

Thank you for the opportunity to review the above referenced project proposal, which will make additions to the Kahului Commercial Harbor based on the 2025 Master Plan.

The Office of Hawaiian Affairs (OHA) has no comments at this point in time. If you have any questions, please contact Jerry B. Norris at 594-1847 or email him at [jerryn@oha.org](mailto:jerryn@oha.org).

Sincerely,

A handwritten signature in black ink, appearing to read "Jalna S. Keala".

Jalna S. Keala  
Acting Director  
Hawaiian Rights Division

cc: Clyde W. Namu'o, OHA Administrator  
OHA Board of Trustees  
Thelma Shimaoka, Maui CRC

RECEIVED  
SEP 23 2002

EDWARD K. NODA & ASSOC., INC.

JAMES "KIMO" APANA  
Mayor

DAVID C. GOODE  
Director

MILTON M. ARAKAWA, A.I.C.P.  
Deputy Director

Telephone: (808) 270-7845  
Fax: (808) 270-7955



COUNTY OF MAUI  
**DEPARTMENT OF PUBLIC WORKS  
AND WASTE MANAGEMENT**

200 SOUTH HIGH STREET  
WAILUKU, MAUI, HAWAII 96793

RALPH NAGAMINE, L.S., P.E.  
Land Use and Codes Administration

TRACY TAKAMINE, P.E.  
Wastewater Reclamation Division

LLOYD P.C.W. LEE, P.E.  
Engineering Division

BRIAN HASHIRO, P.E.  
Highways Division

JOHN D. HARDER  
Solid Waste Division

October 9, 2002

Mr. Brian T. Ishii  
EDWARD K. NODA & ASSOCIATES, INC.  
615 Piikoi Street, Suite 300  
Honolulu, Hawaii 96814

SUBJECT: PRE-ASSESSMENT CONSULTATION FOR  
ENVIRONMENTAL ASSESSMENT  
KAHULUI COMMERCIAL HARBOR 2025 MASTER PLAN  
TMK: (2)3-7-001/3-7-008/3-7-010 (PORTIONS)

Dear Mr. Ishii:

We reviewed the subject request for comments and have the following:

1. Submit a plan for construction waste disposal and recycling.
2. The plan should indicate the location of the proposed new sewer line, any existing lines and any proposed connection point to existing County facilities.
3. The plan should indicate the potential sources of any wastewater discharge and its effect on the County's treatment process.
4. The plan should indicate an estimate (gal/day) of the proposed discharge for this facility. A one-time assessment fee will be required (\$4.57/gal) prior to the issuance of any building permit.
5. The plan should show the location of the County's planned construction (FY2004) for a new force main through this property.

6. The master plan map was not clear as to what activities would occur in the majority of the plan area (e.g.-the area between Kaahumanu Avenue and Pier 2, or the liquid bulk area).
7. The developer is required to fund any necessary off-site improvements to collection system and wastewater pump stations.
8. Although wastewater system capacity is currently available as of September 24, 2002, the developer should be informed that wastewater system capacity cannot be ensured until the issuance of the building permit.
9. Pier 1: Comfort station - What is the exact layout of this comfort station?
  - A. Installation of grease interceptor(s) may need to occur for any possible food service facility.
10. Wastewater pre-treatment devices may need to be installed if docking ships are allowed to discharge directly into the County sewer line.
11. Pier 2C Extension: Passenger terminal - Will there be any food service facilities?
  - A. Installation of grease interceptor(s) may need to occur for any possible food service facility.
12. Installation of wastewater (i.e.: Black or Grey water) holding tanks should be considered for any unforeseen future discharge request by docking ships. At various locations throughout the pier extensions, these tanks would temporarily hold wastewater while being analyzed for discharge acceptance into the County's wastewater system.
13. Discuss improvements to water circulation within the harbor so as to minimize odorous algae along the shoreline in the vicinity of Harbor Lights Condominium/Maui Arts and Cultural Center or provide other improvements to address this current and ongoing problem.

Mr. Brian T. Ishii  
October 9, 2002  
Page 3

14. Traffic and drainage issues are significant for this area. Master drainage and traffic plans are required to be submitted. These plans must also include proposed traffic and drainage improvements for each phase of the master plan.

If you have any questions regarding this letter, please call Milton Arakawa at (808)270-7845.

Very truly yours,

  
for

DAVID GOODE

Director of Public Works  
and Waste Management

RMN:msc/ry

S:\LUCA\CZM\kahuluiharbor-ec.wpd







October 9, 2002

Mr. Brian T. Ishii  
Edward K. Noda and Associates, Inc.  
615 Piikoi Street, Suite 300  
Honolulu, Hawaii 96814

SUBJECT: Pre-Assessment Consultation  
Kahului Commercial Harbor 2025 Master Plan Environmental Assessment

Dear Mr. Ishii,

The following are Maui Electric Company's (MECO) comments regarding the subject matter in response to your letter of September 10, 2002. Please note that comments are not necessarily limited to environmental impacts.

- Pier 1 extension: Concern is the current location of the Clean Island Council spill response equipment on the East side of the harbor. Where/how will they be relocated?
- Pier 1 comfort station and sewer line: MECO is interested in knowing the extent of this improvement. As you may know, there are regulations in place, which may require closure of cesspools by April 2005. We are interested in exploring possibility of tying the Kahului Plant system into the proposed harbor improvement system.
- Pier 3 expansion: Will the depth at this pier be increased with expansion? MECO currently has concerns with fuel unloading flexibility at this pier due to barge draft.
- New Pier 4: Same comment as Pier 1.

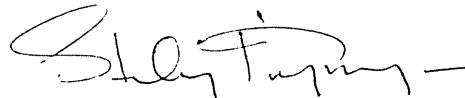
October 9, 2002

- MECO understands that there may be 12" water main projects from Wharf Street to Pier 3 and later on to Hobron Ave. Similar to the sewer upgrade, we are very interested in knowing the details to this project and the possibility of a MECO tie in to this 12" main to enhance water supply and fire fighting capability at the Kahului Power Plant.

Additionally, we are assuming care will be given to planning and scheduling of harbor and vehicle traffic during construction as to not interrupt bulk fuel deliveries, and ensure water turbidity is kept to a minimum during dredging.

Thank you for the opportunity to comment on the subject improvement projects. If there any further questions or need for discussion on the matter, please call Mr. Tom DeMello, Kahului Station Manager, at 871-2355.

Sincerely,



Stanley Kiyonaga  
Manager, Power Supply Department

xc: Tom DeMello  
Richard Cugal





**YOUNG BROTHERS, LIMITED**

P.O.Box 3288 • Honolulu, Hawaii 96801-3288 • (808) 543-9311

October 15, 2002

Mr. Brian T. Ishii  
Edward K. Noda and Associates, Inc.  
615 Piikoi Street, Suite 300  
Honolulu, HI 96814

Dear Mr. Ishii:

Subj: Pre-Assessment Consultation  
Kahului Commercial Harbor 2025 Master Plan Environmental Assessment, Job H.C. 3334

Thank you for your September 10, 2002 letter soliciting input concerning five improvements proposed under the Master Plan.

Young Brothers supports the development of Pier 1 to accommodate passenger vessels. This includes both the pier extension and the installation of a comfort station and sewer line.

We also support the construction of a new Pier 4 contiguous with an expansion of Pier 3. We recommend that Pier 4 be constructed in a straight line with Pier 3 instead of at an angle to it as shown on the harbor plan map. The linear alignment will provide berthing space for larger vessels than would be possible with the articulated design and would keep the full length of Pier 1 intact.

In addition, the primary connections for bulk cargo transfers should be repositioned near the junction of Piers 3 and 4 as we anticipate using 96-foot wide, or wider, barges in the near future. Repositioning the connections would allow for simultaneous interisland cargo operations and fuel transfers while still affording an adequate safety zone for the latter.

We oppose the Pier 2C extension and passenger terminal on the basis that it will create a dangerous mix of cargo and passenger operations. This is a mix that we have been seeking for some time to rectify in Hilo and which existed until recently at Pier 1 in Kahului. Despite the concept that the Pier 2C extension would be served by a separate narrow walkway along the western side of the existing structure, such a walkway would be inadequate for ship service and support vehicles.

The distance between a ship berthed there and passenger ground transportation would also be too great to be convenient, especially for the elderly or those needing assistance.

Furthermore, we recommend making better use of the property already available by:

- Relocating the cement storage facility to provide unobstructed access to the Pier 3 container yard;
- Completing the reinforcement of the Pier 3 container yard for use by loaded 40-ton forklifts, a project that is already in the design phase;

- Repairing and strengthening Pier 2B and the existing Pier 2C to support container operations with 40-ton forklifts from a second barge;
- Constructing a new bridge over the drainage ditch north of the Wharf Street Shed to allow efficient access to the Puunene yard by loaded 40-foot containers on chassis, and
- Increasing the water depth alongside the piers.

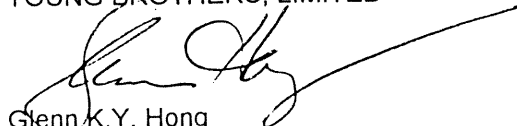
Young Brothers also supports requests by the trucking industry for improvements to the intersections of Wharf Street and Puunene Avenue with Kaahumanu Avenue including better traffic signals and increased turning radii.

Future projects should include replacement of the existing Pier 2B Shed and Wharf Street shed with a single new structure located closer to Kaahumanu Avenue and construction of a new, state-of-the-art passenger terminal at Pier 5 as indicated on the plan map.

Again, thank you for this opportunity to provide our comments on the initial phases of the Kahului 2025 Master Plan. Please call me at 543-9322 if you have any questions.

Sincerely,

YOUNG BROTHERS, LIMITED



Glenn K.Y. Hong  
President

cc: Henry Idehara  
Jeff Low  
Mark Houghton  
Roger Olegario  
Rowland Lee

LINDA LINGLE  
GOVERNOR OF HAWAII



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KAHOOLAWE ISLAND RESERVE COMMISSION  
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'04 APR -7 A9:22

STATE OF HAWAII  
HARBORS DIVISION  
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING, ROOM 555  
601 KAMOKILA BOULEVARD  
KAPOLEI, HAWAII 96707

March 31, 2004

Glenn M. Okimoto  
Harbors Administrator  
Department of Transportation - Harbors Division  
79 South Nimitz Highway  
Honolulu, Hawaii 96813-4898

LOG NO: 2004.0954  
DOC NO: 0403st17  
Architecture

Dear Mr. Okimoto:

SUBJECT: Chapter 6E-8 (HRS) Review Environmental Assessment – Job H.C. 3334  
Kahului Commercial Harbor 2025 Master Plan  
Kahului Ahupua`a, Wailuku District, Maui, Hawaii  
TMK: (2) 3-7-001:021, :022; (2) 3-7-010:002, :003, :006, :013, :015, :021,  
:022, :024, :026, :027, :028, :030, :032, :034, and (2) 3-7-008:002, :003, :004,  
and :006

Thank you for the submittal dated March 01, 2004. The submitted memorandum reiterates discussions from a meeting between staff of SDOT, SHPD, and consultants on February 19, 2004 about the proposed improvements to Kahului Harbor.

The proposed structures will not be built adjacent to any of the historic properties in the area, the closest being Pier 4's development approximately 500 feet away from the Kahului Historic District's Railroad Roundhouse. The closest building will be the new comfort station on the west side of the existing Pier 1 shed. Pier 1's shed was constructed in 1921 and Pier 2's shed was constructed in 1927. Extensions and modifications have been made in 1928, 1955, 1970, and 1973; Pier 3's wharf was constructed in 1979. Proposed structures will be similar in height, layout, and aesthetics with that of the existing harbor's structures.

Because the proposed new work is not adjacent to historic properties, it will not directly affect structures less than 50 years old, and view planes of historic structures will not be impacted, we believe that the determination for the architectural concerns of the proposed project is "no historic properties affected."

Thank you for the opportunity to comment. Should you have any questions regarding architectural concerns please contact Susan Tasaki at (808) 692-8032.

Aloha,

*P. Holly McEldowney*  
P. Holly McEldowney, Administrator  
State Historic Preservation Division

ST:jen



LINDA LINGLE  
GOVERNOR



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HARBORS DIVISION  
79 SOUTH NIMITZ HIGHWAY  
HONOLULU, HAWAII 96813-4898

RODNEY K. HARAGA  
DIRECTOR

Deputy Director  
BRUCE Y. MATSUI  
LINDEN H. JOESTING  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP  
6742.04

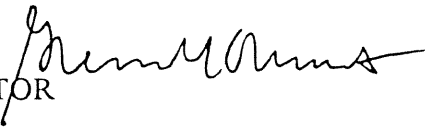
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MAR 02 2004

EKNA SERVICES, INC.

February 26, 2004

TO: P. HOLLY McELDOWNNEY, ADMINISTRATOR  
STATE HISTORIC PRESERVATION DIVISION  
DEPARTMENT OF LAND AND NATURAL RESOURCES

ATTENTION: SUSAN TASAKI  
ARCHITECTURE BRANCH

FROM: GLENN M. OKIMOTO   
HARBORS ADMINISTRATOR

SUBJECT: ARCHITECTURAL CONCERNS AT KAHULUI HARBOR,  
LOG NO. 2003.1690, DOC NO. 0308st16 ARCHITECTURE,  
KAHULUI COMMERCIAL HARBOR 2025 MASTER PLAN  
ENVIRONMENTAL ASSESSMENT - JOB H. C. 3334

Thank you for meeting with our staff and our consultants on February 19, 2004 to discuss your concerns (see letter dated September 17, 2003) on the proposed improvements to Kahului Harbor.

This memorandum reiterates the discussions of our meeting and requests your determination of no significant impacts to historic properties. As discussed, the proposed structures will not be built adjacent to any of the historic properties in the area. The closest proposed improvement to any of the buildings in the Kahului Historic District will be the development of Pier 4, approximately 500 feet away from the Railroad Roundhouse. The pier will be similar to the existing piers at Kahului Harbor and will not include a shed or other type of superstructure. The closest building will be the new comfort station on the west side of the existing Pier 1 shed.

The existing buildings and piers are typical of other neighbor island harbor's structures and do not possess any characteristics which make them architecturally special or unique. The original Pier 1 shed was constructed in 1921 and the original Pier 2 shed was constructed in 1927. Extensions and modifications have been made since then (1928, 1955, 1970, 1973). Pier 3 wharf was constructed in 1979. All of the proposed new structures will be similar in height, layout and aesthetics with the existing harbor structures. Therefore, based on the proposed improvements,

P. Holly McEldowney  
Page 2  
February 26, 2004

HAR-EP  
6742.04

we do not feel that the integrity of any historic properties will be impacted. In addition, the view planes of these historic structures will not be impacted.

An aerial photograph of Kahului Harbor and a map with locations of historic properties prepared by International Archaeological Research Institute, Inc. is included for your information.

Please contact Iris Ishida at 587-1885 should you have any questions.

Atts.

c:✓ Brian Ishii, Edward K. Noda and Associates  
David Welch, International Archaeological  
Research Institute, Inc.



LINDA LINGLE  
GOVERNOR OF HAWAII



**STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES**

HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING, ROOM 555  
601 KAMOKILA BOULEVARD  
KAPOLEI, HAWAII 96707

PETER T. YOUNG  
CHAIRPERSON  
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ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

October 23, 2003

David J. Welch, Ph.D.  
Projects Manager and Senior Archaeologist  
International Archaeological Research Institute, Inc.  
949 McCully Street, Suite 5  
Honolulu, Hawaii, 96826-2780

LOG NO: 2003.1980  
DOC NO: 0310MK06

Dear Dr. Welch,

**SUBJECT: Chapter 6E-8 Historic Preservation Review - Archaeological Assessment  
Review Of a Draft Final Report on Archaeological and Cultural Impact  
Assessment of Cultural Resources Kahului Harbor Improvements  
[State/DOT]  
Wailuku Ahupua'a, Wailuku District, Maui  
TMK (2) 3-7-001:021, 022; 3-7-010:022, 033, 066, 013, 015, 021, 022, 024,  
026, 027, 028, 030, 032, 034; and 3-7-008:002, 003, 004, and 006**

Thank you for the opportunity to comment on the archaeological portion of this assessment which our staff received on August 23, 2003 (Welch et al. 2003, *Archaeological and Cultural Impact Assessment of Cultural Resources at Kahului Harbor, TMK (2) 3-7-001:021, 022; 3-7-010:022, 033, 066, 013, 015, 021, 022, 024, 026, 027, 028, 030, 032, 034; and 3-7-008:002, 003, 004, and 006*. IARII ms). The Draft Final Report was prepared in connection with an Environmental Assessment under HRS 343 on behalf of the State Department of Transportation, Harbors Division and to meet NEPA requirements for the proposed six improvement projects at Kahului Harbor. SHPD Architectural Division has previously commented on specific architectural concerns (Log 2003.1690/Doc 0308st16). This document refers specifically to archaeological recommendations made in the report.

We concur that the potential for subsurface historic deposits in the project area is low, given the information we have regarding previous infilling of the area. However, the fill generally covered beach deposits which may yet contain intact cultural deposits, including both habitation deposits and human burials.

We also agree with the proposed mitigation measures that archaeological monitoring is warranted on specific TMKs including 3-7-08: 01, 03, 4, and 06, parcels on which proposed improvements to the Pu'unene Yard will focus. A monitoring plan will need to be submitted for review by this office prior to onset of project. Should subsurface disturbance be planned on other parcels in the project area, they should be included in the monitoring plan.

David J. Welch, Ph.D.  
Page 2

We find this assessment to be acceptable. As always, if you disagree with our comments or have questions, please contact Dr. Melissa Kirkendall (Maui/Lana'i SHPD 243-5169) as soon as possible to resolve these concerns.

Aloha,

*P. Holly McEldowney*  
P. Holly McEldowney, Acting Administrator  
State Historic Preservation Division

CD:jen

- c: Michael Foley, Director, Department of Planning, County of Maui, FAX 270-7634  
Bert Ratte, County of Maui, Land Use and Codes, FAX 270-7972  
Glen Ueno, County of Maui, Land Use and Codes, FAX 270-7972  
Cultural Resources Commission, Plng Dept, 250 S. High St., Wailuku, HI 96793  
Chair, Maui/Lana'i Islands Burial Council  
Kana'i Kapeliela, Burial Sites Program

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GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING, ROOM 555  
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FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KA-OOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

September 17, 2003

David J. Welch, Ph.D.  
Projects Manager and Senior Archaeologist  
International Archaeological Research Institute, Inc.  
949 McCully Street, Suite 5  
Honolulu, Hawaii 96826-2780

LOG NO: 2003.1690  
DOC NO: 0308st16  
Architecture

Dear Dr. Welch:

SUBJECT: Chapter 6E-8 (HRS) Review of a Draft Final Report on Archaeological  
and Cultural Impact Assessment of Cultural Resources Kahului Harbor  
Improvements  
Kahului Ahupua'a, Wailuku District, Maui, Hawaii  
TMK: (2) 3-7-001:021, :022; (2) 3-7-010:002, :003, :006, :013, :015,  
:021, :022, :024, :026, :027, :028, :030, :032, :034; and  
(2) 3-7-008:002, :003, :004, and :006

Thank you for the submittal dated August 25, 2003. The Draft Final Report was prepared in connection with an Environmental Assessment under HRS 343 on behalf of the State Department of Transportation, Harbors Division and to meet NEPA requirements for the proposed six improvement projects at Kahului Harbor.

Architectural Concerns

Seven structures are specifically listed as contributing elements to the Kahului Historic District (SHPD Inventory, 02/74): the Kahului Railroad roundhouse, shop, office, the First Hawaiian Bank, Kahului School, and the County Fairgrounds' auditorium and grandstand. The Draft Final Report's Assessment of Potential Impacts is that since the structures making up the harbor site derive their historical importance from the part they played in the development of the harbor; these modifications are simply a continuation of the process that gives the piers and wharves their historic value; the proposed project's impact is deemed to be minimal and less than significant under the NEPA regulations; the harbor piers and wharves are regarded as significant cultural resources primarily because of their role in history and not their architectural qualities, therefore, the modifications will not affect the qualities that give the property its value; the effect of the harbor improvement projects will be negligible; since most of the alterations are minor, involving extensions and expansions of current features rather than construction of new facilities, the impact will be unnoticeable; any indirect impacts should not affect the structures' architectural integrity and would therefore not constitute a significant impact.

David J. Welch, Ph.D.  
Page 2

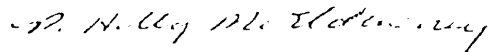
Although the Draft Final Report states that a SHPD letter dated October 3, 2002 provided a preliminary review of the project, appearing to concur that a finding of no significant impact would be appropriate, we request further specific information clarifying the actual type of work proposed before we can make a determination regarding architectural concerns.

Archaeological Concerns

We will be issuing an archaeological and cultural review under separate cover.

Thank you for the opportunity to comment. Should you have any questions regarding architecture please contact Susan Tasaki at 692-8032. Should you have any questions regarding archaeology please contact Cathleen Dagher at 692-8023 or Dr. Melissa Kirkendall at 243-5169.

Aloha,



P. Holly McEldowney, Acting Administrator  
State Historic Preservation Division

ST:jen

- c: Michael Foley, Director, Dept of Planning, 250 South High Street, Wailuku, HI 96793  
Cultural Resources Commission, Planning Dept, 250 S. High Street, Wailuku, HI 96793



**NOT TO SCALE**

# KANAHHA POND WILDLIFE SANCTUARY

**VICINITY MAP**

**DECEMBER, 2003**

Prepared by : Edward K. Noda and Associates, Inc.

**AERIAL PHOTO 10-82  
AIR SURVEY HAWAII**









## **APPENDIX B**

### **ARCHAEOLOGICAL AND CULTURAL IMPACT ASSESSMENT OF CULTURAL RESOURCES AT KAHULUI HARBOR**



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# Archaeological and Cultural Impact Assessment of Cultural Resources at Kahului Harbor

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TMK: 3-7-01:21,22, 3-7-10:2,3,6,13,15,21,22,24,26,27,28,30,32,34  
& 3-7-08:2,3,4 & 6



by  
David J. Welch  
Amanda A. Morgan  
Coral M. Magnuson  
and  
Usha K. Prasad

*INTERNATIONAL ARCHAEOLOGICAL RESEARCH INSTITUTE, INC.*

*April 2004*

**ARCHAEOLOGICAL AND CULTURAL IMPACT  
ASSESSMENT OF CULTURAL RESOURCES  
AT KAHULUI HARBOR**

TMK: 3-7-01:21,22, 3-7-10:2,3,6,13,15,21,22,24,26,27,28,30,32,34  
& 3-7-08:2,3,4 & 6

by

David J. Welch, Ph.D.

Amanda A. Morgan, M.A.

Coral M. Magnuson, M.A.

International Archaeological Research Institute, Inc.

and

Usha K. Prasad, Ph.D.

Social Research Pacific, Inc.

Prepared for

Edward K. Noda and Associates, Inc.

615 Pi'ikoi Street, Suite 300

Honolulu, Hawai'i 96814

International Archaeological Research Institute, Inc.

2081 Young Street

Honolulu, Hawai'i 96826

April 2004

*This document is printed on acid-free, archival bond paper. It is intended  
to provide a long-term record of the cultural resources of Hawai'i.*

## EXECUTIVE SUMMARY

The State of Hawai‘i Department of Transportation Harbors Division has proposed in its Kahului Commercial Harbor 2025 Master Plan a number of improvements to Kahului Harbor at Kahului, Maui. Under contract to Edward K. Noda and Associates, Inc., International Archaeological Research Institute, Inc. (IARII) has prepared an assessment of the potential impacts to cultural resources of proposed harbor improvements. IARII conducted research to identify and evaluate the significance of historic properties at and near the harbor and assess the potential effects of the harbor projects on these properties. Its sub-consultant, Social Research Pacific, Inc., conducted background research and interviews with harbor user groups and Native Hawaiian elders and cultural practitioners to identify traditional cultural practices at the harbor and assess the impact of the harbor improvements to any traditional activities.

Through a review of previous archaeological reports, files at the State Historic Preservation Division (SHPD), and consultations with SHPD staff, IARII identified two recorded historic properties within or near Kahului Harbor. The SHPD has designated Kahului Harbor itself as a historic property (Site 2953). Following detailed archival research concerning the history of the harbor, IARII concluded that the harbor piers and associated features dating to the 1920s should be considered eligible for inclusion in the National Register of Historic Places (NRHP) based on their association with the broad patterns of Kahului history. The development of the harbor was clearly crucial to the development of Kahului as the largest town on the island. However, because the wharves and building sheds are typical of neighbor island harbor facilities and not unique or special, the site is not considered significant for its architectural qualities. While no archaeological sites have been identified in the harbor area, the presence of former beach and backbeach sand deposits beneath portions of the harbor fill and the recovery of cultural materials during previous archaeological testing indicate that there is the potential for the presence of subsurface archaeological deposits and human burials.

Kahului Harbor also falls within or adjacent to the proposed Kahului Historic District (Site 1607). Three historic buildings, the Kahului Railroad office, shop and roundhouse, listed as contributing elements to this District, are located near the harbor. It was determined that improvements to the harbor will not have a significant adverse impact on the architectural characteristics of these buildings or the visual integrity of the buildings and the District.

The cultural impact assessment determined that only the extensions of Piers 1 and 2 would have any impact on groups using the harbor. These would include short-term interruptions of activities during construction. The extension of Pier 2C would result in the loss of two or three canoe lanes used by the harbor canoe groups, but this will not significantly affect their activities, according to most members. The negative impact will be offset in part by the added protection the new pier extension will provide to inexperienced paddlers. Continuing tenant-user meetings will maintain communications between the Harbors Division and canoe groups and insure that they are informed as the projects are implemented.

It is recommended that, with SHPD concurrence, there be an assessment of no significant adverse impact to cultural resources as a result of the implementation of these improvements, with the provision that archaeological monitoring be conducted of disturbance to any areas where there is a potential for subsurface cultural deposits.



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## **I. INTRODUCTION**

At the request of Edward K. Noda and Associates, Inc. (EKNA), International Archaeological Research Institute, Inc. (IARII) has prepared this assessment of cultural resources at Kahului Harbor, Kahului, Maui. IARII undertook a background literature review, inventory, and evaluation of historic properties (archaeological resources and historic structures) in the Kahului Harbor area and assessed the potential for as yet undiscovered archaeological resources. Its subconsultant for this project, Social Research Pacific, Inc. (SRP), conducted a study of traditional native Hawaiian cultural places and practices at the harbor and prepared a cultural impact assessment of harbor improvements on these practices and on current uses of the harbor by Hawaiian and other user groups.

These assessments were conducted in connection with preparation of an Environmental Assessment (EA) by EKNA to evaluate the potential environmental effects of several improvements planned for Kahului Harbor under the Kahului Commercial Harbor 2025 Master Plan (Harbors Division 2000). IARII's and SRP's research efforts are presented jointly in this report. This report provides assessments of cultural resources, both historic properties and traditional places and practices, at the harbor and of the potential impact of the proposed projects; and it proposes measures to mitigate any adverse effects.

### **DEFINITION OF PROJECT**

The Kahului Commercial Harbor 2025 Master Plan recommends a number of proposed projects to improve the harbor facilities over the next 25 years. The EA being prepared by EKNA will assess the following improvement projects:

1. extension of Pier 1;
2. construction of Pier 1 comfort stations, water line and sewer line;
3. expansion of Pier 3;
4. construction of a new Pier 4;
5. extension of Pier 2C, to include a passenger terminal;
6. structural paving, construction of access bridge, and installation of utilities at Pu'unēnē Yard.

### **GEOGRAPHIC LOCATION**

Kahului Commercial Harbor is one of ten state-managed commercial harbors in Hawai'i. It is located along the north shore of the island of Maui at the end of the isthmus that lies between the West Maui Mountains and Haleakalā Crater, the two volcanic land masses that comprise the island (Fig. 1). The harbor lies in Kahului Bay, a large indentation in the north coastline. Kahului, the largest town and most important commercial center on the island, is inland of the bay. Behind Kahului, sugar cane fields stretch across the entire isthmus to Ma'alaea Bay on the south shore. To the east at the base of Haleakalā lie coastal sand dunes and Kahului Airport, the major airport on the island, with sugar cane fields

stretching up the lower slopes of the mountain behind the airport. To the west is Maui's capital, Wailuku, sitting at the base of the West Maui Mountains.

Kahului Harbor falls within the *ahupua'a* of Wailuku, the largest of the traditional Hawaiian land units that form Wailuku District. This *ahupua'a* stretches from the West Maui Mountains eastward across much of the northern part of the isthmus and ends at the coast, east of Kahului Airport.

Kahului Bay, ringed by sand beaches and sand dunes, forms a natural, partially protected anchorage for ships stopping at Maui. Throughout the 19th century, however, Lahaina remained the main port of call. Then, early in the 20th century, with the filling of some of the coastal land to provide the foundation for harbor structures, the construction of a breakwater into the bay to further protect the anchorage from strong northeastern currents, and the building of piers and wharfs that could accommodate larger ships, Kahului Harbor became the major port on the island and has remained so until the present.

At present, Kahului Harbor has three piers (Fig. 2), all of which provide berths for the vessels that supply vital services and goods for the residents of Maui. Pier 1 also accommodates large cruise vessels carrying international and inter-island passengers.

## PROJECT OBJECTIVES AND METHODS

This project involves identification and evaluation of two categories of cultural resources: historic properties and traditional cultural places and practices. The purpose of the project is to identify from historical documentation, previous archaeological research, interviews with native Hawaiians and harbor user group, and a survey of the project area the cultural resources that are present or potentially present, evaluate the significance of these resources, and determine the potential for significant effects to these resources as a result of the proposed projects.

This evaluation is being conducted to meet the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended, which requires federal agencies to consider the effects of any undertaking on significant cultural resources. Significant historic properties are those cultural resources that are potentially eligible or determined to be eligible for nomination to the National Register of Historic Places (NRHP), based on the criteria of 36 CFR Part 64, the federal regulations implementing the National Historic Preservation Act (NHPA) or to the State of Hawai'i Register of Historic Places (HRHP), based on the criteria set out in Chapter 343, Hawaii Revised Statutes (HRS). A significant environmental effect is any action that would adversely affect those qualities that make a cultural resource eligible for the NRHP or HRHP.

The cultural impact assessment study was completed to meet Section 106 Consultation requirements of the NHPA (under 36 CFR 800). It also aimed to satisfy the Hawaii State Historic Preservation Division's (SHPD) request for conducting cultural impact assessments. The proposed project aims to meet the goals of the Hawaii State Plan, Chapter 226—Socio-Cultural Advancement in HRS Section 225-20-21; 23-27, of the Hawaii Revised Statutes.

Historical and archaeological research previously conducted by IARII and the cultural impact assessment prepared by SRP for the Kahului Airport Improvement environmental impact statement (EIS) provided a baseline of information for the current study. Additional background research for the harbor area involved a search for documents and maps at the University of Hawai'i Hamilton Library Pacific Collection, the Bishop Museum library and archives, the State of Hawai'i Archives, State Survey Office,

Hawaiian Mission Children's Society Library, and the Hawaiian Historical Society, and newspaper articles at the State Library. Reports of archaeological studies in the SHPD library were reviewed.

The IARII archaeologist conducted a one day field visit to Maui, which included survey of the harbor area, recording of the condition of historic buildings near the harbor, and brief archival research at the Maui Historical Society (Bailey Museum) archives in Wailuku.

The SRP oral historian conducting the cultural impact study made several visits to Maui to interview native Hawaiian informants and individuals and organizations who use the harbor. During these visits archival research was conducted at the Maui Historical Society and the Maui News.

## **ORGANIZATION OF THE REPORT**

This report first reviews the traditional oral history of the Kahului Bay area and then the history of the harbor itself from historical sources that document its inception and development, and its importance for the historical development of Kahului and Maui as a whole. This section (Chapter II) provides a historic context in which the importance of the material cultural remains of the Kahului area (the archaeological resources and historic structures), their role and history, and their significance as potential historic properties can be defined and evaluated.

Chapter III reviews the previous research on the historic cultural resources at Kahului Harbor and the nearby region and the results of that research. This summary provides a basis for assessing the potential for buried archaeological sites in the harbor area.

Chapter IV presents SRP's cultural impact study, in which information on traditional land use was gathered from written sources and oral interviews with fishermen and Hawaiian *kūpuna* who have previously used or currently use the project area. The primary emphasis is on interviews with current users of the project area.

Chapter V provides an assessment of the significant cultural resources identified at Kahului Harbor and the potential for discovery of as yet unidentified resources (the Affected Environment) and evaluates the potential impact of the projects on these resources (Environmental Consequences). Measures to mitigate these potential adverse effects are proposed.

Chapter V also summarizes potential cultural impacts from the projects, as well as comments and suggestions offered by user groups, in the context of the state Environmental Council's guidelines for cultural impact assessments and the Hawai'i State Plan for Socio-Cultural Advancement. Based on the interviews, recommendations to minimize the effects of the planned project are offered.



## II. KAHULUI HARBOR—HISTORICAL BACKGROUND

During the traditional era, Kahului Bay formed part of Maui's prosperous Na Wai 'Eha region; today it is the site of Hawai'i's second-most-important industrial port. Kahului Harbor's development could be seen as the story of how two key Territorial-era industries, transportation and plantation agriculture, brought each other to prosperity. The port's most rapid expansion took place during the first three decades of the 20th century, but it continues to play a part in Maui's commercial and industrial growth.

During the reign of Kamehameha III, a village of 26 pili grass houses graced the Kahului shoreline. A century and a decade later, a showcase of post-World War II urban planning spread inland from the same shore. Through tidal wave, plague, fire, political upheaval, industrialization, and spasms of civic improvement, Kahului was frequently and energetically reborn. Throughout the process, but especially from 1900-1931, town fathers doggedly built up the harbor—each milestone (a new wharf, a deeper channel) celebrated with one anxious eye on the next pressing need.

Kahului, dwarfed by its neighbor Wailuku and long outshone as a port by Lahaina, grew in the 20th century into the second most important harbor in the Hawaiian Islands, with a port infrastructure that sometimes surpassed even Honolulu's in sophistication. One could see that process as the result of tidal forces of industrial growth, but one could almost as easily see it as the brainchild of one man—Henry Perrine Baldwin, key owner of the Hawaiian Commercial and Sugar Company and its subsidiary, the Kahului Railroad Company. The railroad funded the first 10 years of intensive harbor construction, and was one of the main government contractors thereafter. The company also owned much of the land under Kahului town and kept a firm grip on its development.

### BEFORE SUGAR

Written sources leave behind little more than random snapshots of the traditional Hawaiian era and the early years of foreign contact. Kahului—whose name probably means “the winning”<sup>1</sup> (Pukui et al. 1974:67)—is located on the north coast of the Wailuku *ahupua'a* on the Maui isthmus. Its once dry and sandy hinterlands merged toward the northwest with an extraordinarily fertile area traditionally called Na Wai 'Eha or “the four waters,” after four streams of windward West Maui: Waikapū, Wailuku, Waiehu, and Waihe'e (Handy and Handy 1972:496).

Na Wai 'Eha was one of Maui's most productive agricultural areas and home to one of its two major population centers. The bay was a rich source of seafood, with a major fishpond—actually two adjacent ponds, named Kanahā and Mau'oni—near its eastern shore. The Kahului shore was once lined with coconut trees (Tomonari-Tuggle and Welch 1995:13).

The area around Kahului Harbor was likely a Hawaiian settlement during prehistoric times, probably a village primarily of fishermen who would have used the shore of the bay to launch their fishing canoes and collect shellfish from the coastal flats. This way of life continued into the early historic

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<sup>1</sup> “Winning” here probably carries the sense of “prize” or “spoils,” not of the act of victory itself.



period. Based on the account of a native Hawaiian of “considerable age,” a writer at the turn of the century described the area (*Paradise of the Pacific*, September 1900, in Silva n.d.:10):

The shores of Kahului harbor, from Waihee Point to Haiku, were surrounded with the grass huts of the fishermen and of those connected with the innumerable war canoes of the king. Myriads of coconut trees lined the beach from Kahakuloa to Wailuku.

Archaeological sites uncovered near Kahului Harbor support this documentation. Cultural deposits (Sites 3119, 3120, 5070) and buried human remains (Sites 3139, 3120, 4211, 5071, 4211) have been found within the beach sand.

Each of the four regions of Na Wai ‘Eha had its own special breeze; Wailuku’s was named Makani-lawe-malie or “the wind that takes it easy” (Sterling 1998:62). The names of the four streams that define the region are said to have less peaceful meanings, recalling past battles. One of the meanings attributed to Wailuku is “water of destruction,” after a legendary battle where men fought with owls (Sterling 1998:63, 74).

Around 1781 chief Kahekili of Maui (who had a residence, Kalanihale, at Wailuku) was attacked by the Big Island chief Kalaniopu‘u, whose forces pushed north from Mā‘alea Bay on Maui’s south shore, but were repulsed at Wailuku.

As tensions rose before the invasion, both chiefs had built *heiau* (temples) to enlist their war gods’ support. Kalaniopu‘u relied on crack troops called the Alapa and Pi‘ipi‘i, and Kahekili commanded “chiefs, fighting men, and left-handed warriors whose slingshots missed not a hair of the head or a blade of grass.” Kalaniopu‘u’s men took heavy casualties in two stunning defeats—both likened to schools of mullet being lured or chased into a pond—before he gave up the invasion (Kamakau 1992:85-87).

Nine years later an even more famous attack on Kahekili—led by Kamehameha the Great, who had begun his campaign to consolidate the islands under his own rule—began with a landing at Kahului. Kamehameha’s huge fleet of war canoes, some with swivel guns mounted, is said to have filled the bay. A cannon named Lopaka and two trusted foreign advisors, John Young and Isaac Davis, were key to Kamehameha’s victory; “[h]ad they fought face-to-face and hand-to-hand, as was the custom,” Kamakau asserts (1992:148), “they would have been equally matched.” Two days of fierce fighting later, Kamehameha had chased Kahekili’s troops up ‘Īao Valley to defeat. The valley’s red-stained waters became choked with the bodies of fallen warriors; the battle is remembered as Kepaniwai or “the damming of the waters” (Sterling 1998:81, Speakman 1987:53, Clark 1989:7, Bartholomew 1994:5, Kamakau 1992:148-149). “There was great slaughter, but mostly among commoners,” Kamakau (1992:148) remarks of the battle. It was a rout for the Maui king, but not a permanent one. Kamehameha would have to fight for Maui again.

Early in the 19th century those wars ended and by mid-century Maui was already home to a handful of foreigners. But a visitor touring the isthmus’ north shore on his way to Haleakalā (Gorham 1843:16) could still pick out the site of old battles by the scattered bones and skulls visible on the surface—remnants, he believed, of Kamehameha’s campaign.

The lush region was the setting for scenes not only of war but of peace and reconciliation. After Kalaniopu‘u’s 1781 defeat, there was some bickering among his court about who should be sent to sue for peace. His wife Kalola was a sister of the victorious Kahekili, but she refused to lead the peace party (Kamakau 1992:88), saying,

It will not do any good for me to go, for we came to deal death. If we had come offering love we should have been received with affection. I can do nothing.

In the end, the elite chief Kiwala'o led the peace mission, his sacred status so high that even the troops of the winning side had to fall to the ground as he passed by. Once they reached Kahekili in Wailuku, the messengers who came with Kiwala'o begged, "grant us our lives." As Kamakau tells it, Kahekili was quick to reconcile, saying

There is no death to be dealt out here. Let live! Let the battle cease. ... Take the fish of Kanahā and Mau'oni and the vegetable food of Nawaieha...

to the camp of the defeated where his sister waited (Kamakau 1992:88)—giving voice to his generosity in victory as well as to the natural abundance of his home region.

Kahului is also remembered as the site of a peaceful meeting between the 16th century chiefs Keawe-nui-a-'Umi of Hawai'i and Kiha-a-Pi'ilani of Maui (Kamakau 1992:42). In peaceful times, the nearby waters off Wailuku were a favorite surfing spot for the chiefs (Tomonari-Tuggle and Welch 1995:15).<sup>2</sup>

Just east of Kahului Harbor are the remnants of Kanahā fishpond, now a wildlife refuge. The pond may have been built as early as the 1500s with renovations in the 1700s (Tomonari-Tuggle and Welch 1995:15-16). Kanahā was separated from another fishpond, Mau'oni, by a dividing wall. The building of the ponds has been attributed to the early 16th century Maui chief Kiha-a-pi'ilani (Pukui et al. 1974:83, Sterling 1998:88)—the same chief who, with his father, Pi'ilani, is said to have built the Alaloa or long road encircling Maui (Duensing 1998:xiii). But they might also have been built by the 18th century chief Kapi'ioho'okalani (Bartholomew 1994:132, Sterling 1998:87-88).

The latter version<sup>3</sup> relates a stirring adventure that calls up echoes of another island's legendary warriors: King Arthur and his knights. In this case, however, the hero of the quest is a young O'ahu chiefess of high and sacred rank. Her father, Kapi'ioho'okalani, ruled O'ahu and half of Moloka'i and was related to Maui *ali'i* (royalty) as well. He began to build the fishponds but was killed in battle; the Maui king Kamehamehanui continued his work, placing a very strict *kapu* (taboo) on the dividing wall between the two ponds.

Meanwhile, the dead king's daughter, Kahamaluihi, whose home was on O'ahu, traveled to Maui to find her brother, Kanahaokalani. The sacred young chiefess traveled incognito through Maui, and had a number of adventures, including marriage, as she continued to search for her brother. When she arrived near the fishponds her dead father had begun, a crowd had gathered to greet Kamehamehanui, who was approaching in a grand procession. As the king drew near, Kahamaluihi stripped off her *pā'ū* (skirt) and stepped onto the *kapu* center wall between the fishponds. "Around her waist was flying the *pola* [flap] of a white *malo* called the *malo kea*.<sup>4</sup>" The crowd waited in shock to see what punishment the audacious young woman (who had still not revealed her identity) would receive. But the king recognized her and embraced her, saying "I have mourned for you; welcome, cousin," and acknowledged the high rank that

<sup>2</sup> Tomonari-Tuggle and Welch cite Kamakau and I'i in giving the following names for chiefly surfing spots: Kahu, Ka'akau, Kaleholeho, Kaakau-pohaku, Paukukalo.

<sup>3</sup> For this version of the story, Sterling drew on 1923 interview notes in the Bishop Museum's anthropology collection. The story was given to a researcher by Puea-a-Makakanalii, Mrs. Rosalie Blaisdell, in 1923.

<sup>4</sup> According to Pukui and Elbert's *Hawaiian Dictionary*, the *malo kea* is "an epithet for a female priest enjoying masculine privileges and exemption from female taboos."

entitled her to tread on the wall where he had placed a *kapu*. Kamehamehanui invited Kahamaluihi to name the fishponds. She named the one closer to the sea Kanahā, in honor of her brother, and the one inland Mau'oni—the alias under which she had traveled in disguise.

A visitor traveling east from Wailuku in 1843 described “a small fresh or brackish water a few rods only from the sea”—possibly the remnants of Kanahā or Mau'oni. He remarked that cattle drank from it and sometimes people used the water too, as “mountain water is some miles off”; at the nearby seashore he saw fishermen at work, fish nets drying, and a few cottages (Gorham 1843:15-16).

Kanahā and Mau'oni provided Hawaiians with mullet during seasons when ocean fishing was *kapu*. The pond was fed by freshwater streams and also had an outlet to the sea; mullet were seen there into the early 1900s. Eventually, dredge materials from Kahului Harbor filled in part of the pond and blocked its outlet to the sea (Bartholomew 1994:132); sadly, by 1907 the “stench from Kanaha pond” was listed as one of the main drawbacks of Kahului's location (*Maui News* December 31, 1947:38).

Before the Europeans came, Na Wai 'Eha contained the “largest continuous region of wet taro cultivation in Hawai'i” and supported the second largest population center on Maui (Bartholomew 1994:127). This concentration of human strength and natural abundance has been suggested as one reason for Maui's success in pre-contact power struggles, greater than might be expected from the island's relative size (Duensing 1998:xiii). But as shipboard diseases swept the islands, “all areas except Lahaina were devastated” (Bartholomew 1994:28). A time-limited search of the archives turned up no details on the fate of the once-thriving Hawaiian community of Na Wai 'Eha.

In 1837 the missionary Richard Armstrong, stationed at Wailuku, described in his journal a tidal wave that wiped out a village of 26 grass houses on the Kahului shore. Strong swimming and quick thinking enabled all but two of the villagers to survive—Armstrong wrote admiringly of the rescue work he witnessed or heard about—but the villagers' homes and belongings were swept inland and smashed into a small lake, possibly Kanahā fishpond.<sup>5</sup>

During the mid-19th century Great Mahele,<sup>6</sup> the *ali'i nui* Victoria Kamāmalu was granted most of the lands around the harbor. In 1876 Kepoikai, the father of Senator A.N. Kepoikai of Wailuku, lived on the beach toward the Wailuku end and owned the fishing right at Kahului (*Maui News* March 3, 1900:2). Numerous smaller grants were parceled out farther inland and westward during the Mahele (Jackson 1881, Unknown 1881), but not within the area under study here.

Hawaiians were among the residents of the impoverished, crowded Chinatown neighborhood that was burned down during Kahului's bubonic plague scare in 1900. Other than that, the original inhabitants of this part of Na Wai 'Eha seem to have left little trace in the written records of the bustling port community that replaced them. It would be tempting to think of that 1837 grass-house village as the precursor to modern Kahului. But only a lengthy and detailed search of archival and Hawaiian-language sources could uncover whether any link between the two exists.

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<sup>5</sup> Armstrong's journal entry for that event was reprinted by the *Maui News* in 1937 for a today-in-history column. Given time constraints it was not possible to find the original document or journal entries for the days and weeks after the event.

<sup>6</sup> This was the legal process, initiated in 1845, that turned Hawai'i's traditional land system into a system of European-style fee-simple ownership.

## CAPTAINS OF INDUSTRY

A Chinese man built the first sugar enterprise on Maui, a mill at Wailuku, in 1823; an early rum distillery was put out of business after missionaries complained to Hawai'i's powerful queen and regent, Ka'ahumanu (Best 1978:29). Small sugar plantations sprang up after that in the area around Kahului Bay. But it took foreign access to land ownership after the Great Mahele—and the 1876 reciprocity treaty with the United States (which guaranteed a better American market for Hawai'i sugar)—to turn the crop into a major focus of the Hawaiian economy.

Sugar cane is a thirsty crop, and its growth in the hinterlands of Kahului expanded rapidly after Claus Spreckels and Henry Baldwin acquired land and water rights and built the Hāmākua and Spreckels “ditches” to irrigate the once-arid region. For a century that gloried in industrial progress, these engineering marvels stretching across rugged, gorge-crossed terrain were monumental achievements indeed. As Osorio points out (2002:185), we know too little to say what effect this irrigation system had on the lands where the water originated and the people who lived there.

In 1878, through his friendship with King Kalākaua, Claus Spreckels secured a lease of 40,000 acres of land, among which was a portion of Wailuku *ahupua'a*. In 1882, he acquired fee simple title to all of the *ahupua'a* through Grant 3343 (Kennedy et al. 1992a:12). That same year, Spreckels founded the Hawaiian Commercial and Sugar Company (HC&S), which quickly became the largest and best-equipped sugar plantation in the islands (Kuykendall 1967:60). The Spreckelsville Mill, actually four mills in one complex, was located just to the northeast of the present Kahului Airport, near the intersection of Old Stable Road and Hana Highway.

Maui sugar growers had to move their product to market, often across similarly rugged land. Some tried to ship directly from small docks on their property, but that was a dangerous process and a number of ships were lost. The open roadstead at Lahaina offered little shelter (Bartholomew 1994:79-80). As the need for better port facilities grew, Kahului Bay began its metamorphosis into a deep-draft international harbor. The port, the sugar plantations, and the railroad helped each other grow from modest beginnings into major Maui industries.

Railroads were coming into being across the islands; Hawaiians soon invented a word for the new mode of transportation: *ka'a ahi* or “fire wagon” (Bartholomew 1994:79). Kahului Railroad built its first line from a starting point on the beach at Kahului (Best 1978:14), where the company's headquarters were also located (Clark 1989:7), to Wailuku; its first locomotive was named after Queen Emma. It was built by Thomas Hobron, a former sea captain turned merchant (Clark 1989:7), who already owned both trans-Pacific and inter-island shipping lines (Hungerford 1963:71). Even before the line to Wailuku was finished, a portion of it opened for business on Monday, July 21, 1879, the Hawaiian Gazette reported a week later, carrying 14 tons of freight and 150 passengers a day.

Within a year of its founding the railroad had built an engine house, yards and a station at Kahului; most of the construction was of wood. The terminus continued to grow rapidly (Best 1978:31). After the Kahului-Wailuku track was laid, the narrow-gauge railroad expanded eastward to Ha'iku and beyond, building tall, “spidery” trestles to cross the deep gorges (Hungerford 1963:69) in another marvel of Victorian engineering. Shipping magnate Samuel G. Wilder acquired the railroad in 1884; and in turn sold it in 1899 to a group of businessmen led by Baldwin.

## THE TOWN

The beginnings of the city of Kahului are imperfectly known; a key player in the town's early development—the Kahului Railroad Company—lost its early records in the tidal wave of 1946 (Best 1978:29); and the *Maui News* did not begin publication until 1900.

Kahului town got its start in the 1860s as a supplier to neighboring Wailuku; shipping soon became its major focus. By the end of the 19th century it had a warehouse, stores, wheelwright and blacksmith shops, a custom house, a saloon, and Chinese restaurants (Bartholomew 1994:132).

The *Maui News* recalled in a turn-of-the-century retrospective that the very first western-style building was a warehouse built by Thomas Hogan near the beach in 1863; a business known as Kimble's store went up in the same area a decade later; and in 1876, William Goodness built and ran a wheelwright/blacksmith shop "just back of where the Kahului Saloon [which moved to Wailuku after the 1900 bubonic plague] recently stood." That same year, a tidal wave flooded the town and "covered the whole flat back of Kahului." By 1879, there was a small landing for the use of sugar planters (Clark 1989:7) and a new custom house was built in 1882 (*Maui News* March 3, 1900:2). By 1900, Kahului town covered 20 acres of flat and poorly drained land along the shore (*Maui News* March 3, 1900:2).

Several events came together around 1900 to accelerate Kahului's development. Hawai'i became a United States territory in 1898. Baldwin and his associates bought the railroad and began making plans for the port. And the bubonic plague swept through the Hawaiian Islands at the turn of the century, taking 70 lives (Kuykendall and Day 1961:190) including several in Kahului.

The plague struck Honolulu, the hardest-hit Hawaiian city, in December 1899; the first suspicious death in Kahului was that of Ah Tong, a "wash house Chinaman," who died on February 4, 1900. It was several more days before a case developed with clear symptoms of the plague. When it did, Sheriff Baldwin quarantined the city, an order that was soon backed up by the Board of Health, and ordered a detention camp set up at the Kahului racetrack.

By Monday the 12th, the camp was ready. "Over 200 Chinese, [Japanese] and natives were fumigated and dressed in new suits, and at two o'clock the procession quickly moved out to their new quarters," the then-weekly *News* reported on February 17. Their old neighborhood—from the Kahului saloon to the custom house—was immediately dynamited and burned. The breeze was blowing from the sea, which helped keep the blaze contained. Frightened Chinese in neighboring Wailuku asked a missionary to help them store their meager possessions, in case the same thing happened to them (Turner 1920:9)—but Wailuku was spared.

The last plague victim in Kahului appears to have been Miss Julia English, sister of the harbor pilot, who died less than a month after Ah Tong. Authorities seemed confident that she would be the last casualty, although dead rats carrying the plague were still found occasionally.<sup>7</sup>

A proposal to burn down the entire town of Kahului gained serious support—including from the Wailuku-based *Maui News* (March 3 and 10, 1900). In the end, a less drastic measure was chosen.

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<sup>7</sup> Oddly, the quarantine of Kahului doesn't seem to have begun until well into March, the month after the last victim apparently died. The purpose of burning was to exterminate rats, which were known to spread the disease, although the full mechanism of contagion was not yet understood.

Kahului was surrounded by a rat-proof corrugated iron wall;<sup>8</sup> residents moved to temporary housing outside the town limits; and no one was allowed inside the wall except for the rat-catchers. Moving these more well-to-do residents took a little longer: It wasn't until March 24 that the *News* announced, "Kahului is now without a resident." By that date, the last plague-infested rat corpse had also been found. Near the harbor, some industrial buildings were renovated in an attempt to dig out the last of the contamination.

A quick search of the records found conflicting indications of when the Kahului quarantine was completely, officially lifted. Once the worst was over, concern seems to have waned gradually as other events competed for public attention. By early May at the latest, the crisis was clearly over (*Maui News* May 5, 1900).<sup>9</sup>

Camp Wood, where the Chinatowners had been quarantined, was kept open as housing for plantation workers (*Maui News* July 28, 1900:3). Cheerful reports of the former internees' clean little homes and promising new jobs alternated with fund-raising appeals for the destitute; it's not clear how many quarantine survivors fit into which category. A Wailuku missionary recorded that as soon as the quarantine was lifted, hundreds of people "of various nationalities flocked to Wailuku, in need of food, and clothing. A very forlorn lot, having lost their all by the burning of their homes" (Turner 1920:9).

By July 19, 1900 the *News* was cheerfully reporting that "[i]t seems quite like old times at Kahului once more. The rat proof fences have all been taken down ... Business is booming, and there is the making of a live little town, if," the newspaper qualified, "the owner will permit it." Ownership of the land underneath the town and harbor was still highly centralized. As the newspaper had described it near the end of the plague crisis (April 28, 1900):

At present, Kahului is nothing more than a private store, wharf, and railroad of the Hawaiian Commercial and Sugar Company, who practically own all the town.<sup>10</sup>

The newspaper called on the company to build workshops and stores and then offer them for sale or lease in order to attract a diverse business community. HC&S would soon come forward with its own vision for municipal growth, but Kahului would remain a one-owner town for a long time to come.

The real metamorphosis for the city began seven years later, in 1907, when a cycle of long-term leases came up for renewal. Baldwin and his associates took the opportunity to push for an early version of urban renewal.

On June 8, 1907 the *News* reported, "The Kahului Railroad Company is filling in the low lands in and about Kahului and will in time raise the level of the entire town site." It was hoped this would help

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<sup>8</sup> Inside the fence on the east side of town were a lumber yard, the Hawaiian Commercial and Sugar Company store, various warehouses, and the Kirkland, Church and Filler residences. From there the wall ran parallel to the Wailuku road, to a spot near the detention camp, from where it extended to the beach, leaving a cottage belonging to a Mr. Ball outside the quarantine (*Maui News* March 10, 1900:3). Unfortunately, no map found to date is detailed enough to pinpoint these exact spots. A man by the last name of Ball was manager of the Kahului Saloon, which moved to Wailuku near the end of the plague crisis.

<sup>9</sup> Kahului seems to have learned from its plague experience. In 1911 diphtheria, scarlet fever, and smallpox swept through nearby towns on Maui, but Kahului implemented house-to-house inspections and escaped without a casualty (*Maui News* December 31, 1947). Twenty years later, the Territory passed new plague regulations and inspected all its harbors for compliance; Kahului Harbor got high marks for both work procedures and physical facilities (*Maui News* July 23, 1932).

<sup>10</sup> At that point, Hawaiian Commercial and Sugar Company had only recently passed into the hands of Baldwin and his associates.

with the mosquito problem. The town's other problems included an insufficient water supply and sewage system (*Maui News*, December 31, 1947:38); these had been among the reasons for the frequent calls, during the plague, for burning down the town and relocating it on healthier ground inland.

The company met with its leaseholders on June 13, 1907, asking them to surrender their leases. New lots were being laid out "in the most modern lines" (*Maui News* June 15, 1907:1); when this process was complete, tenants would have to reapply for leases. By October, work was well underway, the *News* reported on the 5th: "Buildings have been removed and Pu'unēnē Avenue now extends to the sea"; the harbor was being dredged and "the beach lots have all been staked out." The lots would be offered in pre-paid, long-term leases; the company still held on to control of the land.

A generation later, a "land expert" touring Maui in 1930 apparently had nothing but praise for the way Kahului town was run—by the Kahului Railroad Company, which still owned almost all the land under the business district. "As soon as leases expire, the owners must replace old structures with new ones in accordance with specifications approved by manager William Walsh of the Kahului Railroad Co.," the *News* explained. The land expert, C.L. Mattfeldt, also gave the company high marks for its emphasis on fire safety, "parks, beauty, civic pride," and sanitation, and noted that leases seemed to be based on the tenant's ability to pay. "The town is under the absolute control of Mr. William Walsh, who instead of being autocratic is the most popular and best liked man in Kahului!" the expert and the newspaper enthused. The railroad company kept a private police force in Kahului, to supplement the public force's efforts to preserve order (*Maui News* May 7 and 10, 1930).

Early in World War II Kahului was shelled, twice, from enemy submarines in the bay. The first attack, at dusk on December 15, 1941, was recorded on Maui in thick black headlines:

### SUB SHELLS KAHULUI! *DAMAGE SLIGHT No Injuries*

Two shells fell harmlessly into the harbor. Four rounds hit the Maui Pineapple Company cannery, doing some damage to the roof and smokestack. One fell on the driveway of the Maui Vocational School, another in a waste lumber pile on Pier 1, and one broke a few windows at the Pacific Guano and Fertilizer building. None of the damage was considered major. Some frightened Kahului residents started to flee, but police and Boy Scouts persuaded them to return home (Allen 1950:59, *Honolulu Star Bulletin* December 16, 1941, *Maui News* December 17, 1941).

The second attack on Kahului, on December 31, took place after General Order No. 14 established wartime censorship in Hawai'i and therefore received limited coverage (Maui Historical Society 1992:1). The *News* did, however, mention in its first edition of 1942 that Maui police, navy and marine forces, as well as "HC&S Co. cowboys," were patrolling on horseback to prevent looting. The death toll from the attacks: one unfortunate chicken (Bartholomew 1994:149).

Though Kahului Harbor remained relatively unscathed, men did lose their lives at sea near Maui during the war—including four who died during an attack on the Matson freighter *Lahaina* and 24 when the Army transport *Royal T. Frank* came under fire (Bartholomew 1994:149).

Maui saw extensive construction to accommodate U.S. military needs during World War II—including naval air stations at Kahului and Pu'unēnē and the huge Camp Maui on the slopes of Haleakalā—but apparently very little at the harbor itself. The Army, Navy, and Marines trained "all over the island" (Bartholomew 1994:146); the Marines seem to have found a special place in the hearts of the islanders, who christened them "Maui's own." When the Marines Fourth Division returned to the island

after their victory at Iwo Jima, “the Maui community turned out en masse at Kahului Harbor to welcome their warriors home” (Bartholomew 1994:146-147).

## THE HARBOR

A number of ports on Maui developed before Kahului, with a variety of wharves and landings. However, Kahului was the first Maui port with a structure to which ships could directly moor, rather than anchoring offshore and transferring their freight and passengers by lighter (Rush 1957:41).

Early construction on Kahului Bay included a scattering of buildings, early railroad facilities, at least one wharf, an “unfinished jetty” noted in 1881, and a “fishery” (Monsarrat 1879; Jackson 1881; Howell 1896) (Figs. 3. and 4, Photo 1). But as noted earlier, development of the harbor began in earnest under Baldwin’s leadership just after the turn of the century. Railroad and port depended on each other to provide service to the merchants of the port town and the plantations around it. As the railroad expanded eastward, the harbor grew to accommodate ever larger and deeper-draft vessels; its most intense period of development would cover the first three decades of the 20th century.

In its original condition, the bay was exposed to the prevailing northeast trade winds and to the occasional severe storm coming directly from the north (Clare and Morrow 1930:73). A high priority at the turn of the century was a breakwater to slow the heavy seas entering the harbor from the northeast. Baldwin’s Kahului Railroad Company built the original eastern breakwater on top of the eastern reef, which already gave the bay some natural protection (Williams 1909:130). At first they used huge rocks cleared from the canefields; later, a company quarry supplied the project. The company also dredged the harbor and built a wharf, moorings, and buoys (Hungerford 1963:20, *Maui News* December 12, 1931).

By mid 1900, plans were afoot to rebuild the harbor and downtown areas—enlarging two (apparently already existing) wharves, building new depots and workshops, and erecting a new hotel near the wharf. “There will be a lower and upper balcony extending around three sides of the hotel, and the side next to the sea will extend out into the water, supported on piles,” the *Maui News* reported, continuing in a burst of post-plague optimism: “No more shanties are to be built at Kahului, but neat and commodious cottages will be erected as needed.”

The hotel was under construction by November, and the “old wharf” was renovated and lengthened (*Maui News* July 28, November 3 and November 10, 1900). Baldwin hired an engineer to survey the harbor in 1901, and asked the pilots and captains that worked for him to record tides, winds and currents to have the information ready when the time for building came (*Maui News* August 23 and December 12, 1931). Work on the breakwater began in 1905 (*Maui News* December 12, 1931). By 1908 the company had built two small wharves (Rush 1957:41, Nakayama 1987:108). Early harbor development apparently did not spoil the beauty of the bay—a 1910 article called it “bathing of the best and a splendid beach” (Clark 1989:7).

By 1910 the harbor (Fig. 5) had reached a number of milestones—an 1,800-foot breakwater protected the harbor from the eastern side, and on it stood a 40-foot-tall lighthouse; the harbor had been dredged, and the new 200-foot pile-and-timber Claudine Wharf could accommodate vessels with up to 25-foot draft.<sup>11</sup>

<sup>11</sup> Russian workmen contributed greatly to the building of the Claudine Wharf, the *Maui News* reminisced in a 1947 retrospective (December 31:38). The Russians “proved to be good workers but of wandering disposition,” the *News* recalled, many leaving for San Francisco and others for the drinking life.



But repeated problems such as storm damage to the breakwater led to increasing conviction that harbor development was a task too big for any one company to handle. The federal government took over responsibility for the harbor itself in 1910; the territorial government later took charge of the wharves; but the Kahului Railroad Company remained in the picture as a major building contractor.

Construction of a western breakwater began in 1917 (see Fig. 5); five years later, work began on a long-awaited new wharf to accommodate larger vessels (Photo 2). Pier 1, as it was called, went up along the eastern breakwater. The 500-foot-long concrete structure was turned over to the Territory of Hawaii in August 1923.

The freight conveyor system it needed in order to be truly effective was not finished until later; but a festive visit by the Matson steam liner *Maui*, carrying an excursion party from the San Francisco Chamber of Commerce in October 1923, celebrated its opening. The vessel docked smoothly in spite of rough weather; passengers had to walk about 1,000 feet to the waiting cars because the roadway approach was still under construction, but nobody seemed to mind. In a major boon for the harbor, the Los Angeles Steamship Company announced in the summer of 1924 that it would make the new pier at Kahului a regular stop for two of its steamers, the *City of Los Angeles* and the *Calawaii*.

The first visit of the *City of Los Angeles* was a public relations disaster for the harbor and its new wharf. Carrying 112 passengers, the liner arrived on July 28 in a stiff wind and had a terrible time maneuvering its way to the dock and mooring securely—in spite of help from two local vessels, the *Leslie Baldwin* and the *Makaiwa*. Eventually, the cruise ship's passengers had to be taken off by small boat and landed, humiliatingly enough, on the old Claudine Wharf. The last passengers got to shore around 5 p.m., which didn't leave much time for sightseeing. It took the *City of Los Angeles* three and a half hours to dock, with all the help the harbor could provide. Leaving the next day, the ship fouled its anchor on old steel cables lying on the harbor floor, fouled its propeller on a buoy, and hit a sandbar on the way out of the harbor. The harbor floor was "disordered," fumed Captain Paulson, who refused to use the dock again.

Two weeks later the somewhat smaller *Calawaii*, arriving in better weather and piloted by Kahului harbormaster E.H. Parker, docked without problems—as a crowd watched in suspense from the shore. Two weeks later, Parker brought the *City of Los Angeles* in without a problem, too, despite a "usually stiff trade wind blowing broadside on" (*Maui News* July 30, August 13, and August 27, 1924).

By the end of 1924, the harbor was becoming congested and the nearly new Pier 1 was already being labeled "inadequate" by the business community (*Maui News* December 20, 1924). Freight was piling up on the wharves, the Claudine Wharf was becoming increasingly unsafe but remained in use, and the planned opening of a new cannery promised to bring even more pressure—and opportunity—to the harbor. The *City of Los Angeles* continued to periodically call off visits to the port due to safety issues; and steamers were lining up at sea waiting for a chance to unload their freight.

The Claudine Wharf was less than 15 years old and the new Pier 1 was scarcely broken in, but already commerce was outstripping the harbor's ability to accommodate it. In 1927, the railroad company's manager, William Walsh, called the Claudine "dangerous to life and property" (*Maui News* March 27, 1927) and complained that Maui was losing business because of the harbor's inadequacies. Two months later, the Claudine was demolished; it had apparently remained in use up to the end, in spite of its hazardous condition.

A new, larger wharf (Pier 2) was already under construction, being built from the sea end in toward shore. It stood in approximately the same place as the Claudine Wharf, but extended farther out to

sea; because its construction began at the seaward end, both old and new structures existed side by side for awhile.

The new wharf's first official customer was the *Mauna Kea* on December 2, 1927; but impatient customers had for some time already been dumping their freight on the unfinished structure and going back across the harbor to complete their paperwork. Two years later, Pier 1—the original deep-draft structure, built along the eastern breakwater—was extended to double its original length. By 1930, although improvements were still incomplete, the congestion had eased. The *News* ran the headline *Pilikia Pau* (the trouble is over) over its report that the harbor, dredged to a minimum depth of 35 feet and a maximum width of 1,455, was now safe for larger vessels; that the two new piers could accommodate two ocean liners, an oil boat, inter-island steamers and lumber carriers; and that a freight conveyor system was planned for the Pier 1 extension, similar to the one that already existed on the first half of the pier.

By August 1931, the *News* was celebrating the successful end of 30 years of harbor development—a well dredged harbor; one pier for large vessels, with the most sophisticated freight handling system in the Islands, a smaller pier for inter-island vessels, and in between “abundant anchorage for sampans and the mosquito fleet” (Fig. 6). On September 16, the paper reported with pride and excitement, the harbor coped smoothly with its busiest day ever, moving five ships in and out right on time with “no interruption, no hurry or flurry,” only “ordered activity.” By December, the crowning touch: Both east and west breakwaters were repaired, lengthened, complete at last.

During the preceding 30 years, the builders and users of Kahului Harbor had often given voice to restlessness and dissatisfaction, driven by the rapid industrial and commercial growth enveloping Maui and the pressures that growth put on the island's only commercial port. At a Harbor Board meeting in August 1923, the commissioners had no sooner taken official possession of the new Pier 1 than they turned to discussion of new construction projects (such as replacing the Claudine Wharf). Little more than a year after it was built, the Maui Chamber of Commerce was already calling Pier 1 inadequate. A harbor dredging project in 1925 came so soon after the last project that the dredger was still in the bay and didn't have to be called back. (*Maui News* August 31, 1923, December 20, 1924, January 10, 1925, October 4, 1930).

But for a moment in 1931, the federal, territorial and private enterprises, the cruise ship captains and freight handlers, the sugar and pineapple plantation managers, cannery owners, fishermen, lighthouse tenders—and perhaps most of all William Walsh, superintendent of the Kahului Railroad Company, who had been involved with the project from its start—could celebrate a goal achieved and a project completed satisfactorily enough to gladden even the most demanding civic booster.

## EPILOGUE

The last major construction milestone at Kahului Harbor was probably the 40,000-ton bulk sugar plant built by the Kahului Railroad Company in 1942—the first of its kind in the islands. Kahului once again outstripped even Honolulu in port technology for a brief while.

By then the nation was at war—a war with a Pacific theater that deeply involved the hearts of Maui's people as they turned thousands of young *malihini* (off-islanders) into “Maui's own,” sent them to now-legendary battles, and lined up at Kahului Harbor to welcome the survivors home.

During World War II, the U.S. government annexed land at Kahului for the construction of the 18th Service Battalion camp of the U.S. Marine Corps and Naval Air Station, Kahului. Following the

war, the airport was turned over to civilian authorities, and other facilities were dismantled or abandoned. Historic archaeological sites found near Kahului Harbor reflect these events, and include Kahului Railroad berm (Sites 3112), Kahului Railroad buildings (Site 1607), an historic deposit (Site 3119) and the former 18th service Battalion camp of the U.S. Marine Corps (Site 4232).

Additions continued to be made to the harbor facilities, but no major changes followed the war. The State improved and expanded the Pier 1 wharf in 1955 and the Pier 2 wharf in 1963. The original sheds on these wharves, put up in the 1920s, were demolished, removed, or modified; and new sheds or shed extensions were built in 1955, 1970, and 1973. The most significant change was the construction in 1979 of Pier 3, a new wharf paralleling the shore northeast of Pier 2.

After the war, at about the same time as the more famous Levitts were building their affordable housing units on the East Coast, a model city grew inland from old Kahului under the direction of the respected urban planner Harland Bartholomew. Unlike Levittown, Dream City's homes were designed to take advantage of Pacific tradewinds, and were built to attract plantation workers rather than returning veterans. The aim was "eliminating the traditional landlord tenant relationship of the companies and their employees ... to achieve a more stable and happier plantation company" (*Paradise of the Pacific*, December 1948:116).

The old landscape of plantation camps and small rural stores would fade as Wailuku and Kahului expanded inland and towards each other. As tourism boomed, it would change even more. But in the restless heart of this ever-re-invented community, the pace of change had slowed a bit—change that had brought Kahului Harbor in the space of a generation, in the time span of one man's career, from a nearly pristine bay to a state-of-the-art industrial harbor.

#### NOTE ON TERMINOLOGY

In the documentation on Kahului Harbor, the names of the main harbor structures changed over time and depending on author, and can be confusing. The Claudine Wharf, completed in 1910, was the first wharf for which there is extensive documentation. It could only accommodate smaller ("inter-island") vessels. The term *Pier 1* almost always refers to the wharf next to the east breakwater, which could accommodate larger ("trans-Pacific") vessels and had the most sophisticated freight handling equipment. It was built in two phases. In original sources, *Pier 2* sometimes refers to the extension (second phase) of Pier 1, sometimes to the new, large-vessel dock that eventually replaced the Claudine Wharf, and more rarely, to the Claudine Wharf itself, while *Pier 3* is sometimes used to refer to the newer, larger structure at the site of the old Claudine Wharf.

For ease of reading, this chapter has used *Pier 1* to refer to the pier along the eastern breakwater and *Pier 2* for the structure that replaced the Claudine Wharf.

The words *wharf* and *pier* are used interchangeably by most writers on Kahului Harbor and this chapter has followed that practice.

### **III. HISTORIC PROPERTIES IN THE KAHULUI HARBOR AREA**

This chapter summarizes the archaeological work and the architectural history research that has been carried out near Kahului Harbor and describes the historic properties that have been identified as a result of this work. The potential for the presence of prehistoric and early historic cultural resources at Kahului Harbor will be assessed within the context of this information.

#### **HISTORICAL/ARCHITECTURAL STUDIES AND SITES**

##### **KAHULUI TOWN AND HARBOR**

The earliest research at Kahului Harbor was conducted by the state of Hawai'i during the 1974 statewide inventory of historic places. As a result of this survey Kahului Harbor was designated as a historic site, Site 50-50-04-2953 on the State Inventory of Historic Places (SIHP). The harbor also formed part of the area defined as the Kahului Historic District, Site 50-50-04-1607.

Site 2953 consists of the piers, wharves, breakwaters, and associated structures that make up the active harbor facility. As discussed in the preceding chapter, development of Kahului Harbor began in 1863 with the building of a warehouse near the beach, and a small commercial landing was in place by 1879. However, the primary period of construction occurred between 1901 and 1931. The designation of the historical period features of Kahului Harbor as elements comprising a historic property reflect the importance of the harbor's construction and development to Maui's history.

The Kahului Historic District consists of the central, coastal section of the town of Kahului. A nomination form for the State of Hawai'i Register of Historic Places (HRHP) was filled out in 1974 as part of the statewide inventory of historic places that was being conducted at that time. The form lists seven structures as contributing elements to the historic district. Figure 7 shows the location of the buildings that are still standing. Four of these were located on the inland side of Ka'ahumanu Avenue: the First Hawaiian Bank, Kahului School, and the auditorium and grandstand at the fairgrounds. Three buildings that were part of the Kahului Railroad (KRR), which terminated at the harbor, were located on the coastal side of Ka'ahumanu Avenue. These three buildings were used as a roundhouse, an office, and a shop for the railroad. According to the inventory form, the significance of the district derives from the role these structures played in the major period of growth and development of Kahului town, especially after a 1917 fire that destroyed much of the town, leaving few structures standing.

The inventory form does not set out precise boundaries for the Historic District; the sketch map on the form simply shows the location of the contributing structures. The district was not nominated to the National or State Register of Historic Places.

Limited archival and field research have been conducted as part of this assessment to update the information on the inventory form. The old First Hawaiian Bank building, located on the southeast of the Ka'ahumanu and Pu'unēnē Avenue intersection, now belongs to the Bank of Hawaii. The two-story concrete building, with its hip tile roof and copper water catchments (trademarks of its architect C.W. Dickey), has undergone some renovation, but it appears to retain much of its integrity (Photo 3). The

school building, situated between Kane Street and School Avenue on the south side of Ka'ahumanu Avenue, was the location of Kahului School, which, from 1912 through the 1970s, served as the main elementary school for Kahului town. After the school was moved to its present location on Hina Avenue, the building was apparently demolished. Today only temporary structures are present, standing on the inland side of the school parcel. The background research was unable to uncover any evidence of when the building was demolished (or moved) or any further documentation of this historic building prior to its destruction.

The Kahului Railroad Company roundhouse and shop remain standing, adjacent to the harbor, on the west side of Hobron Avenue on land owned by Alexander and Baldwin. This shop is a large, concrete brick building with a pedimental façade. The year of its construction, 1926, is engraved in red numerals on the façade below the front pediment (Photo 4). In the rear the shop connects with the curved roundhouse building (Photo 5). These buildings are still in use and seem to have undergone some interior renovation when they switched from railroad to electrical shop, warehouse, and office functions, but the buildings appear to retain their structural integrity. The Kahului Railroad office building, located on the harbor side of Ka'ahumanu Avenue east of Wharf Street on state of Hawai'i land, is in very good condition and appears to have undergone some recent renovation.

#### **NAVAL AIR STATION, KAHULUI (NASKA)**

The coastal area east of Kahului, consisting of sand beaches, sand dunes, marshes, and ponds was developed by the military during World War II as Naval Air Station, Kahului (NASKA); after the war the airport was eventually turned over to the state for use as a civilian airport. Early archaeological studies largely ignored the historic structures at the airport. Welch (1988) noted the presence of extensive remains of military development from World War II, and a preliminary inventory of the World War II features, noting their present condition, was made during a 1994 study of cultural resources for the Kahului Airport Improvements EIS (Tomonari-Tuggle and Welch 1995). Following that study, a more thorough study of the historic buildings was conducted by Mason Architects, including documentation and evaluation of all standing structures (Yoklavich, Tomonari-Tuggle, and Welch 1997). These standing structures include 18 ammunition magazines in the Kanahā Pond area, the Enlisted Men's Beach Pavilion, four small arms magazines, four Quonset huts, and a warehouse. The magazines, pavilion, and the remaining foundation of the Officer's Club were evaluated as potentially eligible for the National Register of Historical Places.

#### **ARCHAEOLOGICAL STUDIES AND SITES**

There have been several archaeological studies carried out in the Kahului area; but only one within the harbor itself. Table 1 summarizes the work that has been carried out; Figure 8 locates the various studies. Figure 7 shows the location of archaeological sites that have been identified in the general vicinity of Kahului Harbor. Discussion of the results of previous archaeological studies and the results of these studies is organized by sub-area.

Table 1. Archaeological Studies in the Vicinity of Kahului Harbor.

| Report                                       | Location  | Level of Survey   | Comments  |
|--|---|---|---|
| Kikuchi 1973                                 | statewide   | fishpond survey;<br>Ph.D. dissertation                            | described and classified Mau'oni and Kanahā Ponds, Site 50-50-05-1783   |
| Barrera 1976                                 | 1,020 acres; Waiale   | surface survey of<br>disturbed areas                              | notes that human remains were<br>previously found in sugar cane fields to<br>south  |
| Connolly 1981                                | development areas of<br>Kahului Airport   | reconnaissance<br>survey; Airport<br>Master Plan EA               | Site 1 (50-50-05-1798)—burials in<br>airport area   |
| Keau 1981                                    | Kanahā Park/Wastewater<br>Treatment Plant   | overview; pedestrian<br>survey                                    | no surface evidence of sites but major<br>storm had covered surface of the<br>treatment plant   |
| Fredericksen and<br>Fredericksen 1988        | 232 acres south of airport<br>in sugar cane fields  | reconnaissance<br>survey; limited<br>subsurface work              | survey limited to roads, ditches, open<br>areas   |
| Fredericksen et al.<br>1988                  | 34 acres between Kaunoa<br>School and Maui CC   | surface survey and<br>backhoe trenching                           | 9 backhoe trenches; no cultural deposits  |
| Welch 1988                                   | Short Term Kahului<br>Airport Development areas   | reconnaissance<br>survey; revisit<br>Connolly 1981 sites          | probable subsurface deposits in dune<br>extending west of Site 50-50-05-1799;<br>military remains around proposed access<br>road at west end of airport   |
| Kennedy 1990                                 | 300 m inland of Kahului<br>Harbor; proposed Maui<br>Community Arts and<br>Cultural Center | backhoe trenching   | 51 trenches; no cultural remains; absence<br>of cultural remains due to previous<br>leveling of dunes   |
| Donham 1990                                  | 4.6 acres; Maui Palms<br>Hotel  | surface survey and<br>augering                                    | 40 auger cores; cultural deposit<br>interpreted as secondary deposit<br>imported as fill  |
| Goodfellow 1991                              | warehouse site west of<br>Kanahā Pond   | surface survey/<br>subsurface testing<br>(25 backhoe<br>trenches) | no cultural remains; black beach sand<br>1 m b.s.   |
| Kennedy et al.<br>1992b                      | TMK 3-5-03:01   | inventory survey<br>and subsurface<br>testing                     |   |
| Fredericksen, D.<br>and Fredericksen<br>1992 | Kahului Beach Road and<br>Waiehu Beach Road   | Inventory survey  | railroad bed (Site 50-50-04-3112),<br>historic refuse and prehistoric deposit<br>(Site 50-50-04-3119), and a prehistoric<br>deposit radiocarbon dated to 1790±70<br>years BP (Site 50-50-04-3120) |
| Fredericksen, W.<br>and Fredericksen<br>1992 | Maui Community College  | inventory survey  | heavily disturbed, no new sites: Kahului<br>Railroad berm and foundations from the<br>18th Marine Camp  |

Table 1. Archaeological Studies in the Vicinity of Kahului Harbor (continued).

| Report                             | Location                             | Level of Survey                                       | Comments   |
|------------------------------------|--------------------------------------|---|--|
| Griffin 1993                       | Nehe Point, Paukukalo                | inadvertent burial                                    | one burial (Site 50-50-04-3139) found beneath a house  |
| Fredericksen et al. 1994           | Maui Central Parkway, Wailuku        | inventory survey                                      | 23 backhoe trenches, no sites found  |
| Dunn and Spear 1995                | Waialae Road, Wailuku                | archaeological monitoring                             | three sites: an isolated hearth (Site 50-50-04-4067), a human burial (Site 50-50-04-4005), and pre-contact burials and cultural layer (Site 50-50-04-4068)   |
| Tomonari-Tuggle and Welch 1995     | Kahului Airport                      | limited field survey and cultural resource assessment | five known archaeological sites (2 buried cultural deposits, a burial/reburial area, possible surface habitation area, and a fishpond)   |
| Fredericksen and Fredericksen 1996 | Lower Main and Mill Streets, Wailuku | data recovery   | Site 50-50-04-4127 found during road improvements; consists of two cultural layers including artifacts associated with fishhook manufacture, lithic tool use, and food preparation; radiocarbon dating indicates late precontact period (AD 1570-1780) |
| Hammatt and Chiogioji 1996         | Waiale Road, Lower Main Street       | field inspection                                      | historic bridge and six previously documented sites with human burials   |
| Burgett and Spear 1996             | Lower Main Street                    | inventory survey                                      | Maui Sand Hills (Site 50-50-04-4004), remnant of cultural deposit  |
| Heidel et al. 1997                 | Maui Central Park, Wailuku           | inventory survey                                      | surface survey and 31 backhoe trenches; Kahului Railroad berm (Site 50-50-04-3112), WWII military installation (50-50-04-4232), and an area previously identified as containing scattered human remains (Site 50-50-04-4211)                           |
| Wade, Eblé, and Pantaleo 1997      | Kahului Harbor Barge Terminal        | inventory survey                                      | Surface survey and 11 backhoe trenches; one firepit and two historic artifacts   |
| Fredericksen and Fredericksen 1998 | Lower Main and Mill Streets          | inventory survey                                      | remnant cultural deposit tentatively associated with previously identified habitation Site 50-50-04-4127 and Site 50-50-04-4414, a precontact cultural deposit with an associated burial   |
| Chaffee et al. 1998                | west of Papohaku Park                | inventory survey                                      | 40 backhoe trenches, no cultural deposits due to prior mechanical disturbance of the soil  |

Table 1. Archaeological Studies in the Vicinity of Kahului Harbor (continued).

| Report                                | Location                           | Level of Survey | Comments   |
|---------------------------------------|------------------------------------|-----------------|--|
| Fredericksen and<br>Fredericksen 1999 | Lower Main and Mill<br>Streets     | Mitigation      | habitation area (Site 50-50-04-4127), a<br>habitation area with an in situ burial and<br>disturbed remains from an additional 1 or<br>2 individuals  |
| Fredericksen 2001                     | Lower Main and Ho'okahi<br>Streets | monitoring      | two sites discovered during traffic signal<br>monitoring: possible precontact<br>habitation area (Site 50-50-04-5070) and<br>a scatter of disturbed human remains<br>contained within fill soil (Site 50-50-04-<br>5071) |

### KAHULUI HARBOR PROPER

In 1996 Garcia and Associates (GANDA) conducted surface survey and backhoe trenching of 8 acres of the harbor area between Wharf Street and Pu'unēnē Avenue. No surface evidence of archaeological sites was found during the survey. Eleven trenches were excavated in the west half of the property (TMK 8-8-8:6). A probable firepit filled with charcoal was found in Trench 10. Due to apparent ground disturbance, the charcoal sample was not submitted for radiocarbon dating, so the age of the feature is not known. In other trenches two historic period artifacts, a sherd of white porcelain and a piece of bottle glass, were found (Wade, Eblé, and Pantaleo 1997). The finds can be regarded as part of Site 2953 and indicate that there is a potential for the recovery of subsurface cultural materials beneath the harbor fill.

On the seaward side where the piers and wharves are located, the harbor area has been extended out by filling in the bay. Therefore, there is virtually no potential for the presence of intact cultural resources in this part of the harbor. However, the inland portions of the harbor from the wharves to Ka'ahumanu Avenue were built by laying fill on top of the former beach. As shown by the excavations by GANDA, the underlying beach sands retain the potential to contain remains of prehistoric or early historic cultural activity or human burial remains.

### THE COASTAL STRIP

Limited archaeological work has been conducted in the coastal strip surrounding Kahului Harbor. Sites that have been uncovered in this area include both traditional Hawaiian and historical archaeological sites. The traditional Hawaiian sites, which were found in sand deposits, include human burials and cultural deposits.

Griffin (1993) recorded a burial (Site 50-50-04-3139) which was uncovered during construction activities near Nehe Point. South of Nehe Point cultural deposits were also found on the west side of Kahului Bay, north of Kahului Harbor (Fredericksen, D., and Fredericksen 1992). Deposits (Site 50-50-04-3119) appearing to date from the late 19th to early 20th century were found overlaying a precontact Hawaiian deposit consisting of marine shell midden, basalt flakes, and abraders. A radiocarbon date of 1790±70 years BP was obtained from charcoal associated with the artifacts. Another cultural deposit (Site 50-50-04-3120) was found ca. 60 ft east of Site 3119. This site contained a variety of artifacts, such as



fishhooks, abraders, basalt flakes, scrapers, and a possible bird bone whistle. In addition, a human phalanx was excavated from what may have been a rodent disturbance, suggesting that burials may be located nearby.

Two more archaeological sites were recorded just northwest of Site 3119 (Frederickson 2001) near the intersection of Lower Main Street and Ho‘okai Street. Site 50-50-04-5070, a cultural deposit in dune sand, consists of scattered charcoal flecking and marine shells. It is located on the southern side of Lower Main Street. Site 50-50-04-5071, located on the northern side of the street, consists of human skeletal material. Old breaks in the bone indicate it was previously disturbed.

Three archaeological sites were recorded south of Site 3119 within the 110-acre Maui Central Park (Heidel et al. 1997). Scattered human remains (Site 50-50-04-4211) were found in dune deposits in the central eastern portion of the park near Maui Community Arts and Cultural Center in 1996. The bone appeared to be out of context and was collected by State Historic Preservation Division (SHPD) archaeologist Theresa Donham. Additional testing by Heidel et al. (1997) uncovered no evidence of human remains. Site 50-50-04-3112 consists of remnants of the Kahului Railroad berm (see below). Site 50-50-04-4232 is the former 18th Service Battalion camp of the U.S. Marine Corps, attached to the 4th Marine Division at Camp Maui. Following decommission, a large amount of fill was dumped over the area, possibly obscuring remains of the camp. Only four concrete pads were observed.

Several other studies have failed to reveal any evidence of cultural resources. A surface survey at the Wailuku-Kahului Wastewater Treatment Plant to the east of the harbor failed to uncover any evidence of cultural materials (Keau 1981). A major storm, however, had covered the ground surface with debris, possibly hiding surface archaeological sites. An inventory survey conducted on a 10-acre parcel on the southwest side of the harbor uncovered no evidence of traditional Hawaiian or historic cultural materials (Fredericksen et al. 1994). Modern debris, such as tires, bottles, and concrete, were present on the surface. Twenty-three backhoe test trenches were excavated on the parcel, revealing extensive disturbance. A survey just east of Kahului Harbor and west of Kanahā Pond (Goodfellow 1991), in which 25 backhoe trenches were excavated, also found no evidence of cultural remains.

### **KAHULUI RAILROAD**

Kahului’s railroad was developed for the transportation of sugar cane from the fields to Kahului harbor in the late 19th century. The Kahului Railroad (KRR) was founded in 1879 when Thomas Hobron added passenger cars to the rail system. The Kahului Station was located southeast of the harbor at Hobron Point and the line extended along the coast east towards Spreckelsville and west towards Wailuku. A branch also went to Pu‘unēnē.

Site 50-50-04-3112 consists of remnants of the Kahului Railroad berm, which extended in a north to south direction, roughly paralleling Kahului Beach Road (Heidel et al. 1997). The berm is roughly 3 m high and 12 m wide. It is lined by ironwood and coconut trees. Historic deposits (Site 50-50-04-3119) have also been found on the west side of Kahului Bay, north of Kahului Harbor (Fredericksen, D., and Fredericksen 1992). The deposits appear to date from the late 19th to early 20th century and were likely related to the railroad. They overlie an earlier, precontact Hawaiian deposit.

### KANAHĀ FISHPOND

Kanahā Pond Wildlife Sanctuary is located east of Kahului Harbor. The pond itself, today covering about 37 acres, was a prehistoric Hawaiian fishpond, Site 50-50-05-1783, dating back to at least the middle of the 16th century. Kikuchi (1973) classifies the ponds based on written records and interpretation of aerial photographs. Mau'oni Pond is a Type III pond, a *loko wai*, which is “an inland fresh water fishpond which is usually either a natural lake or swamp, which can contain ditches connected to a river, stream, or the sea, and which can contain sluice gates” (Kikuchi 1973:228). Kanahā Pond is also a *loko wai*, but one “whose shape has been altered by man” (Type IIIa) (Kikuchi 1973:229).

The only documented archaeological survey was a pedestrian survey of the refuge by Connolly (1981). He does not, however, describe his survey method nor any observations of his survey. Survey of the Kanahā Pond Wildlife Sanctuary area was not carried out during the assessment of cultural resources at Kahului Airport (Tomonari-Tuggle and Welch 1995) because it was nesting season and entrance was not permitted. Although the fishpond has been disturbed by modern activity, it remains partially intact. In the absence of any archaeological survey of the area, it remains unknown whether any cultural features associated with Hawaiian use of the pond are still present.

Kanahā Pond has appeared on historical maps from as early as 1881; it should be noted that this map shows a stone wall across the pond, the only historical record of the existence of such a structure (Jackson 1881; see Fig. 3.). Mau'oni Pond is only known from traditions; based on historical maps (especially USGS 1922), however, it is likely that Mau'oni Pond was located in the east half of the Kanahā coastal flat, below the natural, seaward end of Kalialinui Stream. Later historical maps show the changes in the configuration of Kanahā Pond but it was not until World War II that the pond was significantly impacted by the construction of ammunition magazines and access roads for NASKA.

### MAUI SAND HILLS

A number of archaeological sites have been found in the coastal dune deposits called Maui Sand Hills. Many of these sites consist of human burials and cultural deposits, often in disturbed contexts. A series of such sites, though frequently disturbed, are located along Lower Main Street extending back from the intersection with Kahului Beach Road toward central Wailuku. These are shown on Figure 8. Remains of the old KRR bed also parallel Lower Main Street.

One of the richest of the archaeological deposits in the Sand Hills is Site 50-50-05-4127, a habitation area with associated human remains found near the intersection of Lower Main Street and Mill Street (Fredericksen and Fredericksen 1999). Artifacts uncovered from this area, such as basalt adzes, *poi* pounders, basalt hammerstones, and shell tools and ornaments, suggest the site was used for permanent habitation.



#### IV. TRADITIONAL AND CURRENT USES OF THE HARBOR AREA

This chapter describes the cultural impact assessment study conducted in connection with the proposed Kahului Harbor improvements. This study consisted of interviews with persons and groups, including fishermen and Hawaiian *kūpuna*, who use or have used the Kahului Harbor, and those who may be affected by potential developments along the existing harbor. Along with the interviews, site visits were done to assess the proximity of physical features (traditional/historic, recreational, residential, roadways) and user group areas within the project area.

The study was completed to meet Section 106 Consultation requirements of the NHPA and satisfy the Hawai'i State Historic Preservation Division's (SHPD) request for conducting cultural impact assessments. As part of the requirement, attempts were made to contact *kūpuna* (Hawaiian elders) who are knowledgeable about the area. Since the harbor management regularly holds meetings for its tenants and users, many of the informants were participants of these meetings. Interviews were completed between the months of September and October 2002. Organizations using the two canoe *hale* (houses) at Hoaloa Park were visited and consulted with on several occasions.

Due to the relative familiarity of the projects proposed in the 2025 Master Plan to user groups and the generally favorable nature of the plan's overall intent, it is felt that the types of impacts that can be expected (potential or no impacts) identified during this planning level study are adequate for the planning phase.

The primary objective of this cultural impact assessment is to:

1. identify traditional and current cultural uses of the harbor area;
2. identify user groups who would be affected (culturally impacted) by projects proposed in the 2025 Master Plan;
3. conduct interviews with individuals and groups to identify these potential effects;  
and
4. assess the level of impact(s) from these potential affects on traditional and current cultural practices in the area.

The user groups identified for this cultural impact assessment include tenants of Kahului Harbor who were identified from the tenant-user meeting roster. Non-tenant user groups were identified through site visits to the project area. All user groups were interviewed either in person or by telephone. Interviews and discussions were also held with individuals who expressed general interest in the project area.

Interviewees who previously spoke with this researcher for *An Evaluation of Traditional and Historical Land Uses in the Kahului Airport Area* (Prasad and Tomonari-Tuggle 1999) provided significant information about traditional land uses in the present project area. The informants included *kūpuna* and other individuals of Hawaiian ancestry, and long-term residents who are familiar with the history of Kahului. The following section consists of oral history data gathered during that earlier study, combined with additional information from the present study.

Participants in the current study and the 1999 study are listed in Appendix B.

## TRADITIONAL HAWAIIAN USES OF THE KAHULUI HARBOR AREA

The following accounts summarize the types of “traditional uses” recalled or verified by interview participants; the list may not be exhaustive.

### FISHING USES OF THE AREA

Fishing appears to have been the primary activity in the Kahului area up until and well after the beginning of the plantation period. Oral interviews indicate that several types of subsistence activities related to fishing took place along the shores of Kahului, in the ponds, and nearby areas. Among these are:

1. fishing in Kanahā pond,
2. shellfish gathering,
3. picking of *limu* (edible water plants),
4. turtle hunting,
5. *hukilau* (traditional net fishing), from Kuau to Lower Pā‘ia, and
6. gathering salt from salt pans.

First-hand accounts of fishing activities in the area come from Charles (Charlie) Keau, Aaron Brown, and Rene Sylva.

**Charlie Keau:** According to Charlie, fishing was the main concern [use] of the area by Hawaiians. Along with Kanahā Pond, the reef area was widely used for gathering shellfish. He does not think that all of Kanahā Pond was used. During certain times of the year, the pond would smell from the *limu*. He remembers that Mau‘oni Pond extended all the way to the old Fairgrounds area. Turtle fishing was also known from the Kahului area. Having a nearby stream, people had access to both freshwater and saltwater fish, including *moi* (threadfish) and ‘o‘opu (goby). The area was also famous for picking *limu*. (Although not too much traditional fishing takes place nowadays, the shoreline along Kahului remains a popular place for netting and diving.)

Charlie grew up in Paukūkalo, Wailuku (across Kahului Harbor, looking west from Pier 1). Paukūkalo was also good for fishing and picking *limu*. He recalls that the old folks really liked Paukūkalo and that it has changed dramatically since construction of the Community Center. He remembers that old timers used to put their canoes out from “Kalo Grounds,” the present location of Maui Beach Hotel. Some of these people also lived underneath the nearby trees.

Charlie recalls Kahului being referred to as “Kahiwa‘a,” which translates to “the nose of the canoe.” According to Edward Baker (in Sterling 1995:93), the name “Kaihuwa‘a” was given to the Dream City subdivision in Kahului. Another name used in the area was “Kaimuhee.” According to W. Uaua (June 29, 1871, in Sterling 1995:92), Kaimuhee was above the two waters, Kanahā and Mau‘oni. Although not familiar with this place name, Charlie says that Kaimuhee can be translated as “underground place for octopus” or “imu for cooking octopus.” Since cooking or drying of seafood was generally done

at the shore, it is difficult to determine just where this place would have been located. No one else had heard of the name Kaimuhee.

**Aaron Brown:** Aaron has been a fisherman for most of his life. He was born in Hilo but raised by his family in Pā‘ia. He spent most of his time fishing along the shoreline from Pā‘ia to Waihe‘e. Kahului was a very popular fishing grounds, as well as a place for picking *limu*. He recalls Piers 1 and 2 in Kahului as being popular places for fishing, diving, and swimming. The area was very clean before Kahului town was built up. Remnants of both piers, which were directly oceanside of the current Longs Drugs, still remain near the breakwater in Kahului.

Aaron had fished in Kanahā Pond. Along with his brothers and neighbors, he used to catch ‘o‘opu and *āholehole* (Hawaiian flagtail) from the pond. Sometimes there was *pāpio* (the young of *ulua* or jackfish) in the pond. They used old pipes to bring up the fish since there wasn’t any need for nets. The water in the pond was very clean and the fish were visible. Depending on the season, there could be an abundance of fish in Kanahā. Aaron also recalls picking *limu* along the shoreline, and gathering salt inland of Kanahā Pond. He remembers that the land around the old fairgrounds would fill with water at high tide; he didn’t know that this area once formed part of Mau‘oni Pond.

Aaron remembers that his mother participated in the *hukilau* taking place from Pā‘ia on down towards Kahului. One of the foremost leaders of the *hukilau* was Makani Hokoana (father of Nancy Hokoana). Aaron spent a great deal of time with the Hokoana family, both fishing as well participating in other traditional Hawaiian activities such as preparing *kalua* pig.

**Rene Sylva:** Rene has been an avid fishermen in the Kahului- Pā‘ia area since the 1930s. Much of what he learned about fishing was taught to him by an older Hawaiian fisherman. Rene is particularly knowledgeable about Hawaiian plants, and knows a great deal about how schools of fish along the shoreline corresponded with the seasonal changes of flowering plants. He was a net fisherman and particularly fond of catching turtle, *enenue* (also called *nenuē* – chub or rudderfish), *manini* (surgeonfish), and *akule* (bigeye scad). Rene also remembers that the Kahului area was (and still is) good for catching lobster. He once caught 208 lobsters during the course of a day. Rene also recalls Makani Hokoana as the person who would lead the *hukilau*. Mr. Hokoana was known particularly for his technique of using the *lau*, which consisted of *ti* leaves and a rope.

According to Rene, after the breakwater was built in 1912, the shoreline changed dramatically. It no longer was a long stretch of sandy beach from Pā‘ia to Waihe‘e Stream. The military made the shoreline off limits to fishing between 1943 and 1945. During this time, the schools of fish got rather large. In 1944, only Hawaiians, many of whom lived in the fishing villages around Kahului Bay, were allowed to go fishing along Kahului’s shoreline.

All forms of fishing (netting, freshwater, reef, and open-water) took place at Kahului during the precontact era and well into the historical period. Kahului is still an important fishing area, although development has changed the face of the shoreline and limited access to many of these resources.

#### AGRICULTURAL USES OF KAHULUI

During the precontact period, Wailuku *ahupua‘a* was known as an area for growing taro (Tomonari-Tuggle and Welch 1995). According to Charlie and Aaron, taro was often grown alongside fishponds and in areas with freshwater streams. “Fishing went hand in hand with taro and cultivated plants” (Aaron recalls the taro that his grandmother grew along Baldwin Avenue in Pā‘ia). While none of

those interviewed had actually witnessed taro growing in the Kahului area, there is little doubt that taro farming took place alongside the ponds. Changes in the configuration of Kanahā and Mau‘oni ponds were significant by the turn of the century.

According to Charlie, it is possible that sweet potato, pumpkin, and Hawaiian sugar cane also were grown in this part of Kahului. Given the type of soil and surrounding activities, it would not have been unusual for Hawaiians to be cultivating these other crops.

### GATHERING OF NATIVE PLANTS

As an expert on native Hawaiian plants, Rene is extremely familiar with the plants of Maui, Lāna‘i, and Kaho‘olawe. Although there appears to be no mention of the gathering of native plants from and around the project area in written accounts, Rene feels that Hawaiians would have gathered plants from the area. Traditional plant species that can still be found in the Kahului area include ‘*aki‘aki* grass and *kauno‘a*. He is certain that many other species of traditional plants were found in the area but that some either have become extinct or have been displaced by introduced plants such as *haole koa* and *kiaawe* that now surround Kanahā Pond.

### HABITATION

Recollections about habitation in the Kahului area date primarily to the historical period. Government records indicate that the *ahupua‘a* of Wailuku was claimed as Crown Lands by Kamehameha III, and that there were no commoners’ *kuleana* lots in the project area. The small historic settlement in the harbor area grew in conjunction with the development of the railway and commercialization of sugar in the late 1800s. Based on the sequence of recorded events, it does not appear that any Hawaiian families claimed or had permanent habitation/use rights to the land before contact or into the historical period. In contrast, surrounding areas, such as Pā‘ia, which had Hawaiian residences before the turn of the century, continue to be home to some of these families; for example, Nancy Hokoana’s family has resided on the family lot in lower Pā‘ia since before the 1900s. (William Tavares’ father purchased the current Tavares family lot from the Hokoana family in 1910.)

While written accounts tell little of Hawaiian settlements in the Kahului area, it is assumed that seasonal camps associated with fishing activities were located along the seashore (e.g., see the “fishing station” on Jackson’s 1881 map). Charlie, who spent much of his youth at Raw Fish Camp in Wailuku, knows the area was very popular for fishing activities. The reef, shoreline, and open seas off the Kahului coast would have been ideal fishing grounds for native Hawaiians. Based on the activities that carried over into the historic period, it can be assumed that similar activities took place during earlier times.

According to Charlie, Harbor Road (now Kahului Beach Road) in Wailuku was marked by a row of coconut trees named in memory of the stevedores who worked at the docks. This was also the location of Raw Fish Camp. Only the people of Pā‘ia and Kahului know of Raw Fish Camp. It had many homes, and residents included Hawaiians, Japanese, Chinese, Filipinos, and Portuguese, all of whom were employees of Kahului Railroad. The camp was destroyed after Dream City was built in the early 1950s. Russell Okumura is a former resident of Raw Fish Camp. He along with Myoko Onaga and Dorothy Makimoto recalled the days when the houses along the camp were occupied. Dorothy lived just above Raw Fish Camp, in Wailuku, while Myoko lived in the town of Kahului. Photo 6 shows Raw Fish Camp in 1973. According to Fred Woodruff, a volunteer at the Bailey House Museum, the Kahului Railroad

Company built the camp in 1919 to house stevedores and their families, who were primarily of Hawaiian descent (*The Maui News*, July 28, 2002).

Almost everyone interviewed recalled the Hawaiian families who lived along the Kahului waterfront (near the present Maui Islander Hotel). These were people who worked for the railroad. George Ito, who worked on installing the sewer system for Dream City, recalls that these families lived along the waterfront until construction began on the first increment of Dream City. Since the railroad employees were also given the option to buy a house or lot in Dream City, many took the opportunity to relocate. George also remembers a rather large Hawaiian settlement near the site of the present wastewater treatment plant adjacent to Kanahā Pond. He recalls that homes of some of the railroad workers (primarily Hawaiians) were scattered in the area that had large thickets of *kiawe* (around Kanahā Pond).

Hiroshi Arisumi, a resident of Camp 6 at Pu'unēnē, recalls that the towns of Spreckelsville and Kahului had houses all along the beach until the airport was built. He believes that these were homes of the wealthy people. Barbara Woods, who moved to Maui in 1954 after her husband took a job with Hawaii Pineapple Company, confirmed this. A few weeks after their arrival, they moved into the old Cameron house in Spreckelsville; Barbara has remained at this residence since 1955. She recalls there being three houses to the west of her home, all of which belonged to people of status. These homes were referred to as the "Beach Houses." There weren't any Hawaiian families living in this area. She recalls that people were less mobile in those days, relying primarily on the railway to get from one place to another. Her family's focus was in and around Spreckelsville and Pā'ia towns, since these provided most of the necessary social services (e.g., beauty shop, post office, and a theater in nearby Cod Fish Village). Until the building of Dream City, Kahului was not much of a town. This is perhaps best summed up by Charlie Keau, "the old timers from Kahului come from Pu'unēnē...the fishermen and railroad workers are all gone."

#### OTHER SOCIAL/RECREATIONAL ACTIVITIES

The beach along Kahului, prior to building of the harbor breakwaters, was all sand and could very well have served as an ideal recreational area for swimming, surfing, and sailing canoes (see Photo 1). Many of the written accounts tell of the canoe landings along Kahului (west to Waiehu and east to Kē'au).

Kamakau (1961:83) refers to Ka'akau and Kehu as two beaches in Waiehu where the ruling chiefs played. According to Charlie, Ka'akau or "breakwater" is the surfing beach at Waiehu, and Kehu is a part of Waihe'e. The entire shoreline area from Pā'ia to Waihe'e is referred to as Ka'a. The area in front of Waiehu is also called Ka'a. No one else recalled the beach names by Ka'akau or Kehu in the Kahului area. Charlie also noted that the *ali'i* would have used the beach areas for surfing only seasonally.

The shoreline along Kahului continues to be an area of much recreational activity. Changes such as the harbor breakwaters appear to only have slowed down but not eliminated recreational use of the area.

#### CURRENT USES OF THE PROJECT AREA

While the primary activities at Kahului Harbor concern commercial uses of the port, the harbor is also used for various cultural activities. Activities such as fishing, surfing and paddling reflect back to a time when this part of Maui served as a primary area for traditional Hawaiian recreational practices.



The following are the primary traditional/recreational user groups identified for Kahului Harbor area.

### PADDLING ORGANIZATIONS

The Hawaiian Canoe Club and Na Kai Ewalu are two fairly large organizations that have *hale* (canoe houses) on the harbor grounds. The *hale* are located side by side on the beachfront (off of Hoaloa Beach Park), facing out towards the eastern breakwater and Pier 1. According to Gabby Garcia of Na Kai Ewalu, his club has been paddling from the harbor since at least 1972; Photo 7 shows club members carrying out their canoe to Kahului Beach. Well known paddlers such as David Kaho'ohanohano and Grandpa John Lake are among the individuals who began the club.

The Hawaiian Canoe Club began using the harbor around 1974. It currently trains up to 180 students during its regatta season (June-July). The *hale* also serves as a meeting area for various social and educational groups. According Mary Akiona, the Executive Program Director of the organization, the club leases the building and the land 10 feet outwards, from the county. Alexander and Baldwin (A&B) lease the adjoining lands.

Paddling season for both groups usually extends from March to September/October, with some intermittent practices in between. People of all ages are members; however, because of its protective and relatively calm waters, Kahului Harbor is a favored and regular training ground for *keiki* (child) paddlers. Both clubs use an area that extends ¼ mile from shoreline of the beach, paralleling and passing Pier 2. There are a total of eight paddling lanes. Two are located on the east side of Pier 2 and are used only by adults and only when there are no boats moving through the harbor. Proposed improvements and/or changes in the harbor, specifically those bordering Pier 2, would impact the canoe paddling groups the most since the areas surrounding this pier are regularly used for paddling. Following earlier consultations with canoe club representatives, improvements to Pier 2 have been reduced in size to minimize impacts on the use of the harbor by the paddlers.

### FISHERMEN—THROW NET AND POLE (OFF THE HARBOR)

Fishing at Kahului Harbor is still very popular. Depending on the type of fish sought, one of three locations is generally chosen—(1) along Perimeter Road, (2) off Hoaloa Beach, and (3) along the western breakwater/wall area. Along Perimeter Road, fishing is done between the Power Plant and Pier 1, at the far southern edge of the harbor. The large rocks off the breakwater and wall provide a good place from which to do pole fishing. At present, a sign reading “No fishing until further notice” is posted at the entrance to Pier 1. Security measures enforced after September 11, 2001, have temporarily closed the area along Perimeter Road to all fishermen. Also, the current Corps of Engineers project at Pier 1 has temporarily placed some of the fishing spots off limits. (Previously an area inside the harbor along Pier 1, was also open to fishermen; for security and safety reasons, fishing has completely been banned in the area.)

The second fishing area, off of Hoaloa Beach Park, fronts the area used by the canoe clubs. These are primarily pole fishermen. (Throw net fishing is not allowed in the harbor, but according to several fishermen, it is frequently done.) Fishermen off the beach park are looking for “seasonal” catch. One regular, Rudy, says he comes when *halalū* (baby mackerel) and *uouoa* (mullet) are in season; he also collects *manuia* or *ogo* (seaweed) off these shores. Fishing off of the beach park, just east of the canoe *hale*, is a favorite of fishermen; the only times they vacate the area is when paddling takes place. Given

the type of fish (young, small) caught by these fishermen, it is unlikely that the extension of Pier 2C will affect their use of the area.

The third fishing spot is along the western breakwater/wall. This is a more established fishing spot, and includes a fishing shack with table, benches, chairs, and fish cleaning areas nearby. According to Mr. Ishikawa, this is “the place where the old timers stay...to play cards, eat, socialize.” The fishing spot is within 50 meters of the small public boat ramp and attracts many fish larger than those in the harbor. According to two fishermen, the area along the western breakwater (inside the harbor) is also good for net fishing. These fishermen would be affected if a new pier is put in place on this western end. However, current harbor improvements do not include construction of such a pier.

#### **FISHERMEN—SMALL BOAT, NON-COMMERCIAL**

Small-boat fishermen use the public boat ramp located at the west end of the harbor. The Department of Land and Natural Resources (DLNR) operates this ramp. DLNR also issues licenses/permits for general uses of the harbor area including canoe races. No small boats are known to use the harbor area where commercial activities are focused. During the period of this study, no small boats came to or departed from the small boat ramp. Small boats would also be affected if a new pier were to be placed along the western breakwater/wall area.

#### **SURFERS**

Surfers have used the western end of the harbor along the breakwater for many years. It is an ideal surfing location for residents along the northern shores of Maui. The surfers primarily come out when the winter swells rise. They find good waves that can be ridden onto the beach (towards Harbor Lights condominiums), in an area that’s well protected from heavy winds and rough seas. No surfers had used the harbor during the period of this study. They would be affected only if the placement of Pier 5 along the western end of the harbor is pursued.

#### **SWIMMERS AND BEACH/PARK USERS**

Swimmers and beach/park users are not likely to be affected significantly by any changes that take place within the harbor. Except possibly for limited access (resulting from multiple uses of the same area), these groups use land and sea areas immediately adjacent to the beach, and are unlikely to be affected by the proposed changes.



## **V. EVALUATION OF SIGNIFICANCE, ASSESSMENT OF POTENTIAL EFFECTS, AND RECOMMENDATIONS**

This chapter assesses the potential impacts of planned harbor improvements on archaeological resources, the Kahului Historic District, traditional native Hawaiian practices in the area, and current uses of the harbor.

The area of potential effect for this project constitutes the four pier areas and the container yard areas directly behind them that will be the sites of the five proposed construction projects. Project areas will be the area into which Pier 1 will be extended, the area in which the Pier 1 comfort station will be built and the sewer line laid, the Pier 3 expansion area, the location of the new Pier 4, and the location of the new passenger terminal.

The modifications could have an indirect impact on remaining areas of the harbor in the vicinity of the improvement areas. Therefore, the entire harbor area will be considered in the assessment of cultural resources and the impacts of the improvement projects on these resources.

### **ASSESSMENT OF HISTORIC PROPERTIES**

#### **EVALUATION OF HISTORIC PROPERTIES IN THE PROJECT AREA**

##### **Criteria of Significance**

Historic properties are evaluated for significance in terms of their ability to meet the criteria for nomination to the NRHP as set out in federal regulation 36 CFR 800 Part 64 implementing the NHPA and the criteria for the HRHP contained in Chapter 343 Hawaii Revised Statutes, Section 6e, as amended. An impact will be evaluated as significant under National Environmental Policy Act (NEPA) if it involves an adverse effect to a significant historic property; that is, if it alters or modifies those qualities of a property that make it eligible to the NRHP or HRHP or alter the integrity of the historic property.

##### **Historic Properties at Kahului Harbor**

Kahului Harbor has been designated a historic site, Site 50-50-04-2953 in the State of Hawai'i Inventory of Historic Places maintained by SHPD. This site consists of those features and structures of the harbor that were constructed during its main period of development between 1901 and 1931. These features are over 50 years old and the harbor retains much of its integrity in setting, materials, and design. This historic site is regarded as potentially eligible to the NRHP and the HRHP on the basis of its importance in the broad patterns of Maui and Hawai'i history and its association with important persons in Maui's history, particularly Henry P. Baldwin. Chapter II of this assessment sets out in detail the historical importance of the harbor in the development of the sugar industry on Maui and the establishment of Kahului as the main commercial center on the island.

The piers and the buildings on them are typical of the facilities found at other neighbor island harbors. They do not possess any characteristics that would make them special, unique, or of high architectural value and thus do not qualify as eligible to the NRHP under Criterion C. Many of the sheds now standing on the piers are less than 50 years old. Of the original buildings constructed in the 1920s, a portion of the Pier 1 shed has been removed, the Pier 2 produce shed was demolished, and the original Pier 2 shed has been modified through the addition of extensions in 1970 and 1973. Thus the significance of the Kahului Harbor site derives from its historical value and not its architectural qualities.

Kahului Harbor also falls within or adjacent to the Historic Kahului District (no formal boundaries have been defined for the district). This district was defined during the 1974 statewide inventory and the district entered as Site 50-50-04-1607 in the SHPD State Inventory of Historic Properties. The register form lists the significance of the district as lying in the areas of architecture and history. Seven structures are specifically listed as contributing elements: the Kahului Railroad roundhouse, shop, and office, the First Hawaiian Bank, Kahului School, and the County Fairgrounds auditorium and grandstand. The three railroad buildings lie adjacent to Kahului Harbor in the area between Ka'ahumanu Avenue and the piers.

Although never formally nominated to the National or State Register, an Hawai'i Register of Historic Places form was filled in, and the SHPD treats the structures contributing to the District as historic properties that are eligible for the National Register. The historic importance of the structures derives from their role in the growth of Kahului town beginning in the late 1880s. Chapter II of this report documents the role of the railroad as well as the harbor in the development of Kahului and the sugar industry on Maui. The buildings are also associated with important figures in Maui's history: T.H. Hobron, Claus Spreckels, and Henry P. Baldwin.

The architectural importance of these buildings is based both on their age and their style. Following a fire in 1917, the town needed to be completely rebuilt. The Kahului School building, built in 1912, though of standard design, was virtually the only building standing in 1974 that dated to before 1917. The auditorium and grandstand of the fairgrounds were constructed in 1919 and form the site of the oldest, continuing fair in the state. The First Hawaiian Bank building is of importance because it was designed by noted architect C.W. Dickey and reflects his trademarks. The railroad buildings display architectural elaborations typical of the 1920s period in which they were built.

Any modification or alteration to these historic structures during harbor improvements would constitute an effect under the stipulations of the NHPA. In accordance with Section 106 of the NHPA, consultation with the State Historic Preservation Officer should take place prior to undertaking actions that would directly or indirectly affect these buildings.

### **Potential for Subsurface Cultural Deposits**

The potential for undiscovered subsurface cultural resources in most of the harbor area is generally quite low. The piers were built on fill from the dredging to deepen the bay and extend out into the bay, so the potential for archaeological deposits beneath these areas is extremely low. The dredged material was also used as fill to cover and level the area stretching back to Ka'ahumanu Avenue and inland of the avenue near Haleakalā Highway. Thus, the upper part of the deposit throughout the harbor area is fill. However, as demonstrated by the previous subsurface testing in the harbor area, in the area between the wharves and Ka'ahumanu Avenue, the fill probably simply covered the existing beach deposits. Since historical and traditional accounts indicate that fishing villages were once located along the shores of the bay and since sand deposits were frequently used for burial by prehistoric Hawaiians,

there is a potential for deeply buried cultural deposits and human burials in these portions of the harbor. Previous subsurface testing during archaeological survey in 1997 in TMK 3-7-8 between Wharf Street and Pu'unē Avenue in the Pu'unē Yard revealed a single cultural deposit, probably a firepit (Wade et al. 1997). The SHPD in its letter of October 3, 2002 to EKNA specifically notes the potential for such deposits on TMK 3-7-10:2. This was previously an unsurveyed vacant lot, but has been paved over with asphalt, and is now used as a parking area for vehicles being shipped to or from the harbor.

#### **ENVIRONMENTAL CONSEQUENCES: ASSESSMENT OF POTENTIAL IMPACTS**

Each of the six proposed projects will directly impact only the piers and the wharves and the container yard areas directly associated with them. These projects, except for the sewer line, will be confined to areas of imported fill that were constructed out beyond the former shoreline of the bay. The only direct impact, then, would be on the pier structures themselves, which form the Kahului Harbor historic site.

The major concern in regard to historic properties from the modification would be a potential adverse effect in regard to the integrity of the setting of these structures and of the KRR buildings that form part of the Kahului District. However, because the structures making up the harbor site derive their historical importance from the part they have played in the development of the harbor, these modifications are simply a continuation of the process that gives the piers and wharves their historic value. Since they have always been integral parts of a changing and actively used harbor facility, this impact is deemed to be minimal and less than significant under the NEPA regulations. Also, as argued above, the harbor piers are regarded as significant cultural resources primarily because of their role in history and not their architectural qualities; therefore, these modifications will not affect the qualities that give the property its value.

Alterations to the harbor could indirectly alter the integrity of setting for the three KRR buildings that form contributing elements of the Kahului Historic District. However, previous alterations around these structures since the time of their construction has already been so great that the effect of the harbor improvement projects will be negligible. Also, since most of the alterations are minor, involving extensions and expansions of current features rather than construction of new facilities, the impact will be unnoticeable. All the proposed new structures will be low in height and similar in form and style to existing structures. From the area of the harbor improvements to the KRR roundhouse, the nearest building in the Historic District, it is a distance of at least 500 feet. Large fuel tanks and the several stories high World War II age sugar plant block any view between the two, eliminating the possibility of further adverse impacts to the visual integrity of the KRR buildings. The KRR buildings are important for their architectural as well as historic value, but any indirect impacts should not affect their architectural integrity and thus would not constitute a significant impact.

While noting that the project falls within the boundaries of a historic site and a historic district, the SHPD in a letter dated October 3, 2002, providing a preliminary review of the project, appears to concur that a finding of no significant impact would be appropriate.

None of the projects as currently planned will affect directly the areas of concern for buried archaeological deposits. Therefore, the project should have no effect on any cultural resources that may be buried at Kahului Harbor.

### **MITIGATION MEASURES**

Mitigation measures for historic properties that may be impacted by this project should consist of efforts in the design of new facilities and during their construction to minimize indirect impacts to the buildings that constitute the Kahului Historic District.

While the potential for finding buried cultural deposits appears quite low, should human remains, prehistoric or historic artifacts, or cultural features (such as trash pits, post holes, or hearths) be encountered in the course of excavations during construction, then the supervisor should halt work in that area and the SHPD Maui office should be notified in accordance with the provisions of Section 6e of Chapter 343 HRS. The Maui archaeologist will then visit the site prior to resumption of construction work in the area of the find, assess the significance of the finds, and decide how to proceed.

The proposed improvements to Pu'unēnē Yard (Project 6) are located in TMK 3-7-08:6, where the archaeologists conducting testing recommended that an archaeological monitor be present during any ground altering activities. In his letter dated October 3, 2002, the SHPO concurred with this recommendation. Therefore an archaeological monitor should be present during all excavation work that might extend below the modern fill level. If any of the other projects should be expanded to the extent that construction work might have an impact on below fill deposits in the properties that form TMK 3-7-08:1, 3, inland portion of 4, and 6 inland of Pier 2 on the west side of Wharf Street, then the SHPD recommends that a qualified archaeological monitor should be present during all ground-altering activities. For any monitoring, a monitoring plan should be prepared prior to the commencement of construction and a monitoring report submitted to the SHPD at the end of monitoring.

At present no ground altering activities are planned for TMK 3-7-10:2, which is located next to Hobron and Ka'ahumanu Avenues and is used as a parking area for incoming and outgoing vehicles. However, if, in the future, any construction is planned for this parcel, then the SHPD recommends that an inventory survey first be conducted of this area to determine if significant historic sites are present. Until a few years ago, this parcel was a vacant lot, but it is now paved with asphalt, precluding any surface survey. Survey would have to consist of subsurface testing to determine if intact cultural deposits are present. An acceptable report would need to be submitted to the SHPD for evaluation of the significance of the cultural resources and the potential adverse effects of the proposed project. Mitigation measures could then be developed in accordance with the findings of the survey. If mitigation of any historic sites were needed, then a mitigation plan would need to be developed in consultation with the SHPD and implemented prior to construction.

### **CONSULTATIONS WITH SHPD**

In reviews of the draft of this report, the State Historic Preservations Officer (SHPO) concurred with the assessment and proposed mitigation measures for the potential archaeological resources, but expressed lingering concern about possible effects of the project on the historic buildings of the area. Following submittal of additional photographs of the project area, a meeting was arranged with the SHPD architect to discuss these concerns. With the use of photographs and an aerial photograph of the harbor, Harbors Division illustrated the presence of existing structures between the proposed construction areas and the structures of the Historic District. Given the distance of 500 feet between the proposed new pier construction and the nearest of these structures, the presence of the other buildings between, and the low height of the planned new buildings, the lack of impact on the visual integrity of the historic buildings was clarified. Harbors Division also emphasized that most of the existing buildings at the harbor itself are less than 50 years old and that all are typical neighbor island harbor sheds, lacking any special or unique

architectural qualities. Following the meeting, in a letter dated March 31, 2004, the SHPD expressed agreement that the harbor improvements will have no effect on any architectural historic properties and that there will be no need to implement measures to mitigate adverse effects.

## CULTURAL IMPACT ASSESSMENT

### ASSESSMENT OF POTENTIAL IMPACTS

Based on information gathered from interviews with individuals and organizations that use the Kahului Harbor and its surrounding areas, the potential impacts of the proposed project would generally be positive. The analyses are presented in table form, according to each “proposed action” and its potential impacts on each of the five user groups. These improvements/actions are to be undertaken sometime within the span of the 2025 Master Plan.

Tables 2 through 7 present the quantitative results of the data gathered from user groups. Discussion of these results and the potential impact/no impact follows the tables.

Table 2. Pier 1C Extension.

| User groups affected          | No impact | Possible impacts |
|-------------------------------|-----------|------------------|
| Fishermen (small boat)        | x         |                  |
| Fishermen (shoreline/net)     |           | x                |
| Canoe paddlers                | x         |                  |
| Surfers (board and kite)      | x         |                  |
| Swimmers and beach/park users | x         |                  |

Table 3. Construction of Comfort Station and Sewer Line at Pier 1.

| User groups affected          | No impact | Possible impacts |
|-------------------------------|-----------|------------------|
| Fishermen (small boat)        | x         |                  |
| Fishermen (shoreline/net)     | x         |                  |
| Canoe paddlers                | x         |                  |
| Surfers (board and kite)      | x         |                  |
| Swimmers and beach/park users | x         |                  |



Table 4. Expansion of Pier 3.

| User groups affected          | No impact | Possible impacts |
|-------------------------------|-----------|------------------|
| Fishermen (small boat)        | x         |                  |
| Fishermen (shoreline/net)     | x         |                  |
| Canoe paddlers                | x         |                  |
| Surfers (board and kite)      | x         |                  |
| Swimmers and beach/park users | x         |                  |

Table 5. Construction of a New Pier 4 (between Piers 1 and 3).

| User groups affected          | No impact | Possible impacts |
|-------------------------------|-----------|------------------|
| Fishermen (small boat)        | x         |                  |
| Fishermen (shoreline/net)     | x         |                  |
| Canoe paddlers                | x         |                  |
| Surfers (board and kite)      | x         |                  |
| Swimmers and beach/park users | x         |                  |

Table 6. Extension of Pier 2C, with Accompanying “Dolphins” (fendering pillars).

| User groups affected          | No impact | Possible impacts |
|-------------------------------|-----------|------------------|
| Fishermen (small boat)        | x         |                  |
| Fishermen (shoreline/net)     | x         |                  |
| Canoe paddlers                |           | x                |
| Surfers (board and kite)      | x         |                  |
| Swimmers and beach/park users | x         |                  |

Table 7. Structural Paving, Construction of Access Bridge, and Installation of Utilities at Puunēnē Yard.

| User groups affected          | No impact | Possible impacts |
|-------------------------------|-----------|------------------|
| Fishermen (small boat)        | x         |                  |
| Fishermen (shoreline/net)     | x         |                  |
| Canoe paddlers                | x         |                  |
| Surfers (board and kite)      | x         |                  |
| Swimmers and beach/park users | x         |                  |

### No Cultural Impacts (Positive)

The improvement project proposed for Pier 3 is seen to have no cultural impacts.

The improvement project proposed for Pier 4 is seen to have no cultural impacts.

The comfort station and sewer line improvement project proposed for Pier 1 is seen to have no cultural impacts.

### Potential Indirect Cultural Impacts (Short-Term)

The improvement project proposed for extending Pier 1 will have no long-term impacts. Short-term impacts may occur to line/net fisherman using the shoreline area to the right of Pier 1, along Perimeter Road. The effect would primarily be restricted access during the construction phases, and is not evaluated as a significant impact.

Improvement projects proposed for and around Pier 2C will have potential short-term impacts on restricting/limiting paddling lanes. Once construction has been completed, canoes and small boats should have access through the fendering pillars. This temporary impact is not considered significant by any of the user groups. The project is slated for 5+ years from the current date.

### Potential “Direct” Cultural Impacts (Long-Term)

The placement of Pier 2C will likely close two or three of the existing eight canoe paddling lanes that run parallel to the beach. Scheduling/coordinating changes will need to be made by the canoe clubs to accommodate the reduced number of lanes. In general, most members of the canoe clubs using the lanes do not seem to feel that the loss of canoe lanes through the addition of Pier 2C would significantly impact their activities. Any negative impacts from the loss of lanes would be offset to some extent by the beneficial effect of added protection that the pier would provide for inexperienced paddlers who are learning canoe skills. (According to S. Cunningham, this project entails no dredging so there should be little change/effects to the existing surf pattern.)

### COMMENTS/SUGGESTIONS OFFERED BY USER GROUPS

The opinions expressed by the various user groups in the Kahului Harbor area generally support the proposed improvement projects. There is also appreciation for current management efforts and style of discussing matters at the tenant-user group meetings. Overall, there is a good relationship between the commercial uses of the harbor and the public (cultural/social) uses such as canoe paddling, fishing, and surfing. One example is the regular communication to user groups by the harbormaster's office on daily boat movements. This is sent via fax to each group.

By far, the activity most likely to be affected by any changes within the harbor area proper, is canoe paddling. Canoe paddlers share the protected bay closest to the area of greatest commercial activity. The fishermen are off to either side of the harbor, or go out in small boats from the public boat ramp on the western end. Surfers and other recreational users of the harbor are primarily active along the western shores, away from the commercial center. Many of these groups are seasonal users of the harbor.

The primary area of concern is the construction of Pier 2C. Although not slated for another 5+ years, development and design plans for construction of Pier 2C should obtain input from the canoe groups to be affected. The construction of Pier 5, a project that would have significant cultural impacts, has been deemed unsuitable at this time for various reasons. If it goes forward, a more project-specific assessment would need to be done.

Specific comments offered by harbor users include the following:

1. Allow the placement of a "main line" for canoe paddlers from Pu'unēnē Avenue out towards and beyond the newly constructed Pier 2C.
2. The addition of Pier 2C looks good, although it may require the paddling regattas to be moved to Saturdays and Sundays (to accommodate the ships), and the reduction of their existing eight lanes to five or six lanes.
3. Open Pier 2C to fishermen. (For security reasons, they can no longer fish off the walls of the existing Pier 2, nor can they any longer use the inner area along Pier 1.) This would allow use of one inner harbor area to fishermen.
4. Construction of Pier 2C will destroy our existing race course. We now have eight clubs and eight lanes; it will reduce it down to five lanes.
5. Plans to expand the harbor should look at other possible sites. However, such alternatives have already previously been assessed by Harbors Division, such as:
  - toward Kanahā Pond (southward of the existing harbor area);
  - Mā'alaea;
  - Olowalu Bay (but need to consider the area's value as a traditional shark breeding habitat);
  - Pā'ia/Spreckelsville;
  - Kīhei (site of historic boat ramp);
  - Waiehu area.

6. Bigger ships such as luxury liners should be ported in another area; they are eyesores.
7. The harbor is much cleaner now that Maui Pine and Land is no longer dumping in the water.
8. We (Maui) have only one harbor, while all other islands have at least two. We need a second commercial harbor.
9. Since tourists generally go to Lahaina, let the ships bringing them dock on the other side.
10. Dredging for the placement of Pier 5 will increase/produce higher surf. It will change the surf conditions within the entire harbor area.

#### **EVALUATION OF FINDINGS WITH RESPECT TO SPECIFIC STATE CRITERIA**

##### **PASH and Traditional/Cultural Concerns in the Project Area**

Public Access Hawaii Shoreline (PASH), the State of Hawai'i Supreme Court decisions that define the rights of native Hawaiians as *ahupua'a* tenants to exercise traditional and customary practices, is not a consideration for Kahului Harbor and the current project area. The application of PASH rights encompasses issues that relate to the broader concept of *ahupua'a*, which includes the shoreline. Although PASH generally applies to access to shoreline areas for traditional and customary practices by native Hawaiians, this is not a concern at Kahului Harbor for two reasons. First, Hawaiian groups (canoe paddlers, surfers, fishermen) have access to the harbor, and most importantly, will not be denied access as a result of future developments. In the near future, an altar for the god Kanaloa will be completed on the shoreline, between the two canoe *hale* (Gabby Gouveia of Na Kai Ewalu, pers. comm.). The rock representing Kanaloa was brought from Kahakaloa, and is already in place in front of the *hale*. Second, PASH has not been a concern for the harbor area since other traditional uses have either been long abandoned or have been discontinued for a significant period of time.

##### **Application of the Environmental Council Guidelines for Cultural Impact Assessments**

Efforts were taken to meet the Environmental Council's guidelines for conducting cultural impact assessments. An evaluation of the council's six-point protocol is offered below.

1. Efforts were made to contact individuals and organizations that have expertise concerning the types of cultural resources, practices, and beliefs found within the vicinity of Kahului Harbor.
2. Efforts were made to locate individuals and organizations that would be directly affected by changes to the proposed project area.
3. Formal and informal interviews, past and present, were done with individuals who have historical knowledge about the area.
4. Documentary research, particularly on the location of traditional and cultural uses of the area, was completed.

5. Cultural resources in the project area were examined in the archaeological portion of this project, and are not seen as a major component of the current cultural impact study's purpose.
6. The assessment above is considered appropriate in meeting the goals of the current study, taking into consideration that the projects (improvements) are slated for an approximate 25-year period and will occur in an area that is already designated and used as the primary commercial harbor on Maui.

### **Meeting the Goals of the Hawaii State Plan for Socio-Cultural Advancement**

The proposed project aims to meet the goals of the Hawaii State Plan, Chapter 226 - Socio-Cultural Advancement in HRS Section 225-20-21; 23-27, of the Hawaii Revised Statutes. The Hawaii State Plan was prepared as a guide for future development of the State of Hawai'i "in the areas of population growth, economic benefits, enhancement and preservation of the physical environment, facility systems maintenance and development, and socio-cultural advancement (2025 Master Plan 2000:X-1)." At present, Kahului Harbor has two canoe clubs that are actively providing social and cultural education to their young students. These are the kind of activities that could be enhanced and benefit from being incorporated into the state plan's future development goals.

### **RECOMMENDED MITIGATION MEASURES FOR CULTURAL PRACTICES**

Since the cultural impact assessment portion of this report was prepared for a planning level document, there is allowance for any potential negative impacts to be mitigated before actions are taken. There also is an opportunity to properly plan for adverse impacts that may be unavoidable. Based on the information gathered, the following recommendations are made.

1. Address cultural/social impacts as part of an environmental assessment prior to initiating new actions not covered by this assessment. This would include the additional projects proposed in the 2025 Master Plan but not covered in this study that might have potential cultural impacts on user groups.
2. Continue tenant-user meetings and exchange of information regarding the activities in the harbor. These meetings have been highly informative and allow the user groups to be part of the decision-making process. When an improvement project is about ready to begin, notify the user groups at these community meetings prior to initiating the project.
3. Consider creating a pictorial or written display of the rich history of Kahului Harbor. This could provide significant information on the traditional Hawaiian and plantation-era history of the harbor, and display the harbor's current multiple uses including the various commercial needs it fulfills. User groups can be recruited to help create this presentation (both the Hawaiian Canoe Club and Na Kai Ewalu are currently active in offering traditional Hawaiian cultural programs).

**FIGURES**



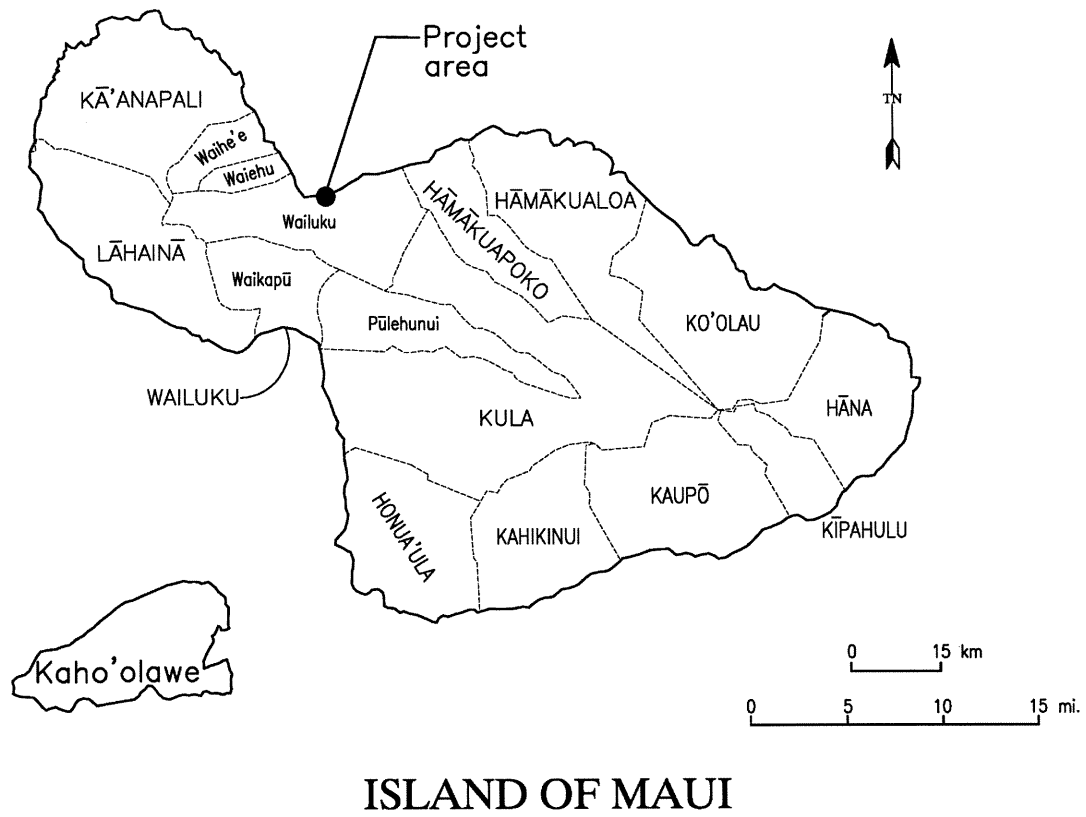


Figure 1. Location of Kahului Harbor.





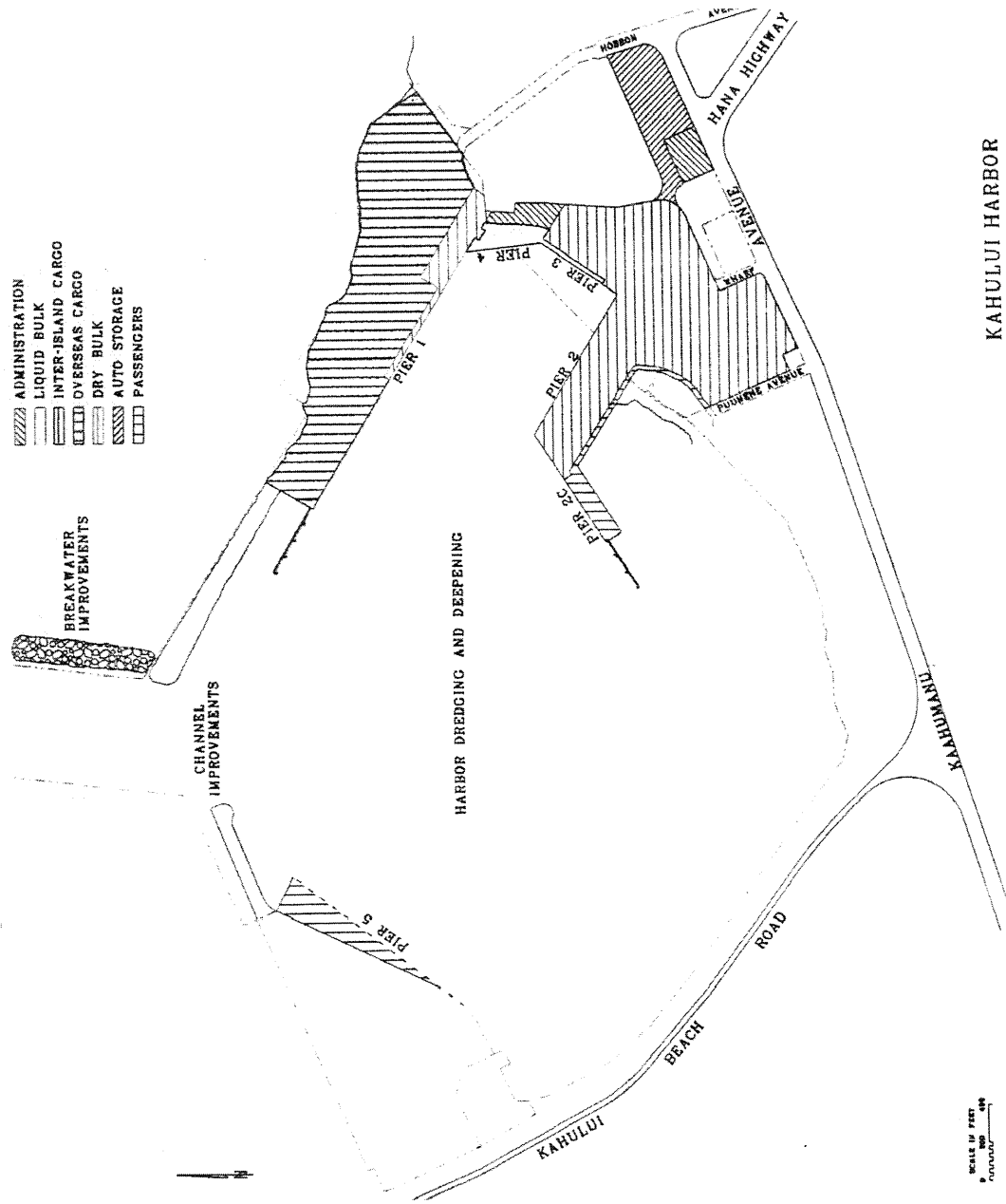


Figure 2. Map of Kahului Harbor showing proposed harbor improvement projects.



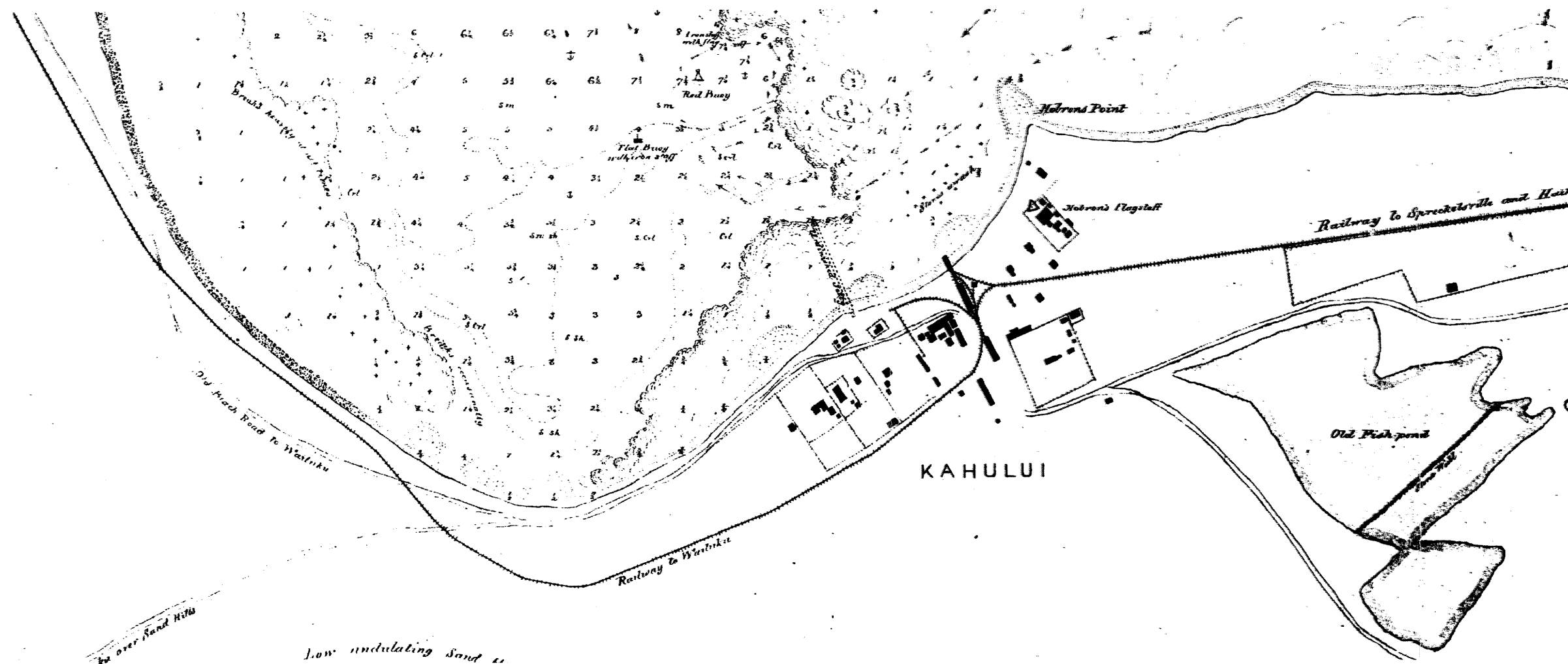


Figure 3. This 1881 Hawaiian Government Survey map by George Jackson shows the beginnings of Kahului town and harbor, the rail lines to Wailuku and Ha'ikū, and the fishponds Kanahā and Mau'oni.

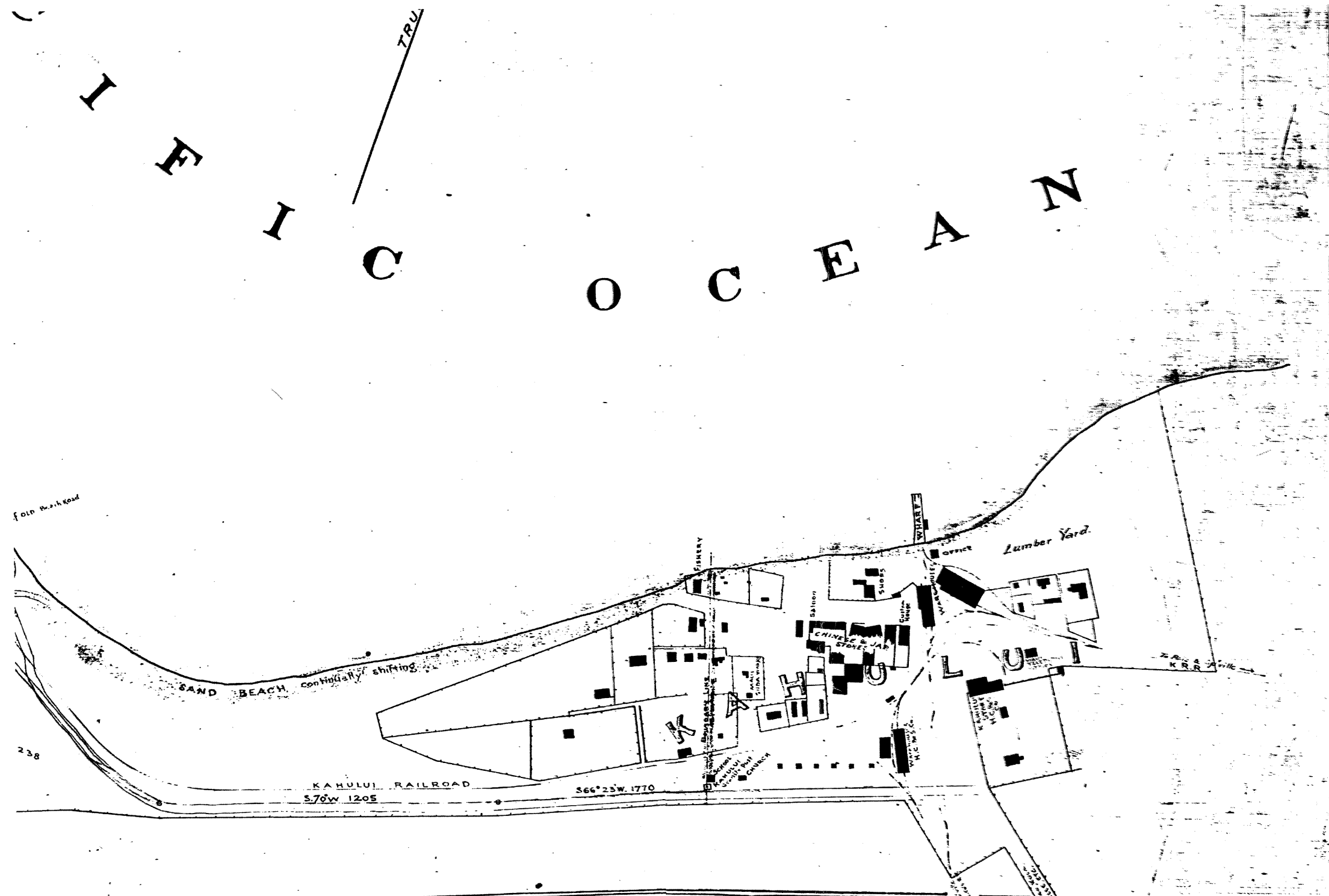


Figure 4. This map by Hugh Howell (1896) shows the town and harbor in somewhat more detail 15 years after Jackson's map.

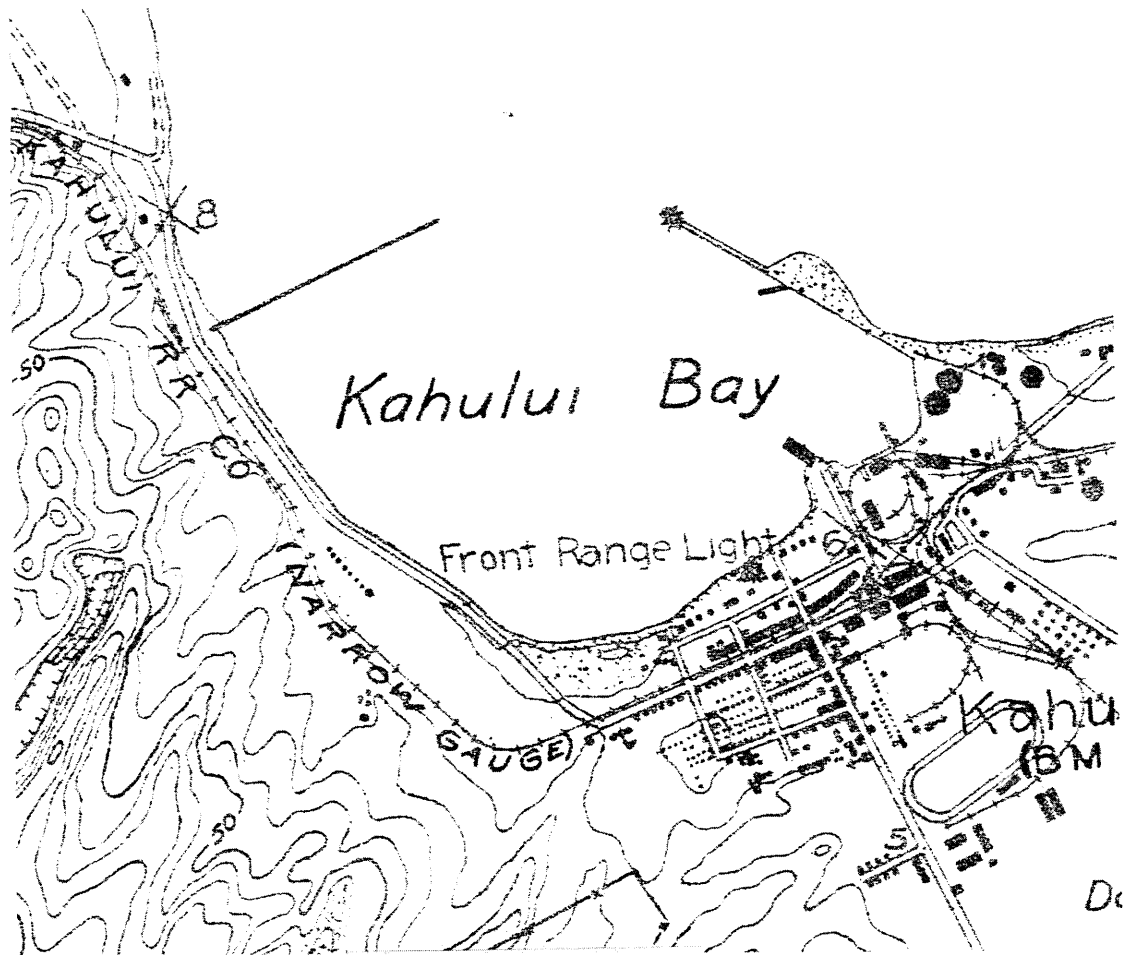


Figure 5. Kahului Harbor's eastern breakwater was completed in 1910; work on the western breakwater began in 1917. This 1922 USGS map shows both breakwaters.



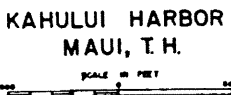


Figure 6. By 1950, the transformation of Kahului Harbor was nearly complete, as seen in this map from Stroup's *The Ports of Hawai'i* (1950:73).





## Kahului Harbor - Archaeological Sites



Figure 7. Location of historic properties in the Kahului Harbor area.





Figure 8. Areas of previous archaeological studies (Source: SHPD GIS).

## **PHOTOGRAPHS**



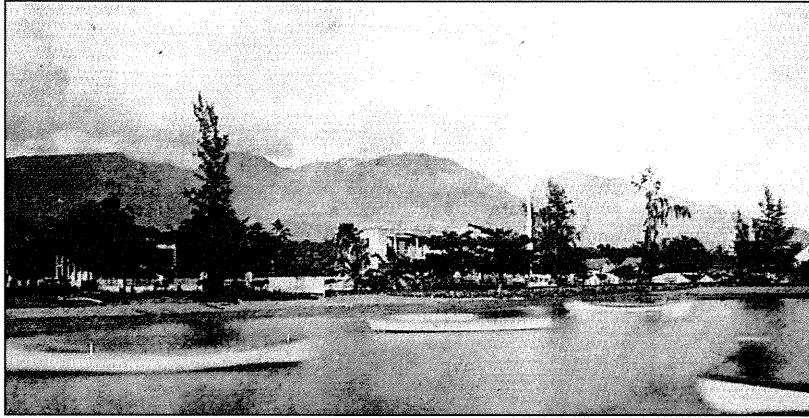


Photo 1. Kahului Waterfront, 1870 to 1880s (Source: Bartholomew 1994).

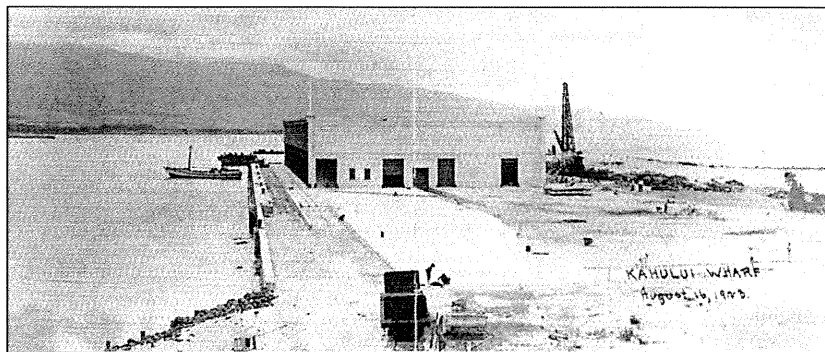


Photo 2. Construction of Pier One at Maui Wharf, 1923 (Source: Bartholomew 1994).







Photo 3. Site 1607 Bank of Hawaii (former First Hawaiian Bank) building.



Photo 4. Site 1607 former Kahului Railroad shop building.





Photo 5. Site 1607 former Kahului Railroad roundhouse.

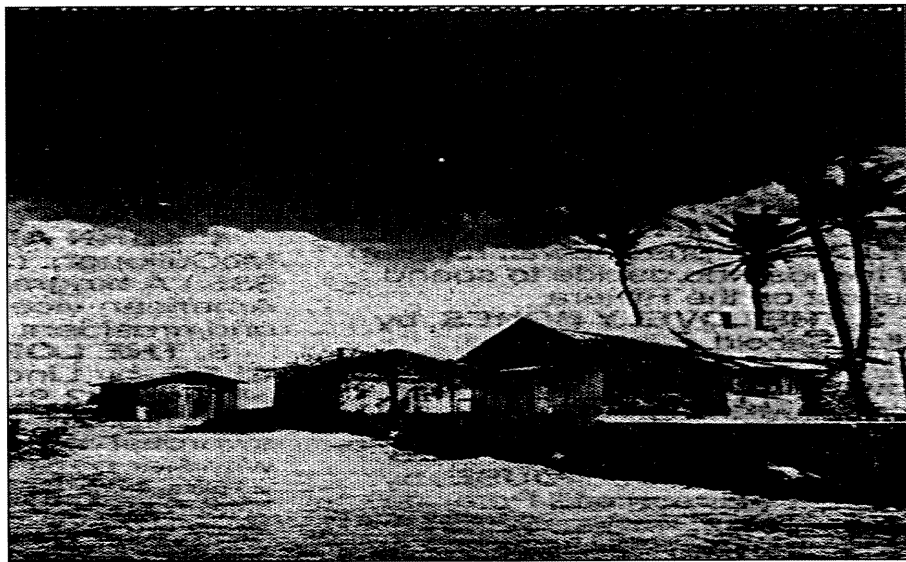


Photo 6. Raw Fish Camp (Photo courtesy of Maui Historical Society, Bailey House Museum).



Photo 7. Canoe being carried to the beach at Kahului, 1970s (Source: Bartholomew 1994).



## APPENDIX A.

### KAHULUI HARBOR TIMELINE

*“There were so many harbors to be dug, three decades ago.”*

*— Maui News August 23, 1931*

*“Contrary to general belief, the Kahului breakwater project is not  
entirely finished.”*

*— Maui News October 30, 1931*

| Year               | Event   |
|--------------------|---|
| 1857               | <i>The Friend</i> publishes an article on ports of the Sandwich Islands; Kahului is not mentioned.  |
| 1863               | A warehouse, the first European-style structure, is built near the beach.   |
| 1873               | Kimble’s Store is built near the beach.   |
| 1876               | A wheelwright/blacksmith shop is built near the old site of the Kahului saloon.   |
| 1876               | A tidal wave floods Kahului.  |
| 1879               | A small landing is built for sugar growers.   |
| 1879-1881          | Captain Thomas Hobron and his associates build the first line of Kahului Railroad; the Kahului Railroad Company is incorporated two years later.                            |
| 1884               | Samuel G. Wilder acquires Kahului Railroad.   |
| 1899               | Hawaiian Commercial and Sugar Company buys the railroad.  |
| 1900<br>– November | A new hotel is under construction at the harbor; the “old wharf” has gotten new piles and been extended 40 feet and is in the process of getting new flooring.              |
| 1901               | H.P. Baldwin hires an engineer to survey the harbor.  |
| 1903<br>– April    | During a mass meeting on April 24 at the Wailuku Court House, the crowd expresses strong support for a public wharf at Kahului and chooses representatives to lobby for it. |
| 1904               | A new roundhouse is built.  |
| 1905               | Kahului Railroad Company makes many improvements during the year, including new buildings, additions to old buildings, and improved shipping facilities.                    |
| 1905               | Work starts on the harbor’s east breakwater.  |
| 1907               | Breakwater construction and harbor dredging are underway.   |
| 1908               | By this year the Kahului Railroad Company has built two small wharves. Vessels do not pull up to the wharves but sent freight and passengers in on lighters.                |

| Year                           | Event   |
|--------------------------------|---|
| 1901                           | Kahului has a customs officer, a government pilot, and a Public Health and Marine Hospital Service quarantine officer.  |
| 1909                           | Kahului is still completely dependent on lighters to transfer goods and people; there is no wharf suitable for steamers or sailing vessels to pull up to directly.  |
| 1909<br>– October,<br>November | Representatives of Kahului Railroad Company meet with the governor to discuss plans for the waterfront. Negotiations focus on the smaller of two planned wharves (which will become known as the Claudine Wharf). Discussion of a bigger wharf are expected to take place later, after the harbor has been dredged. The government reserves the option to take over the wharf at a future date. Within a few weeks the company receives a license to build an inter-island wharf. |
| 1910                           | By 1910, Kahului Railroad Company has built an 1,800-foot breakwater on the eastern side of the harbor, dredged the harbor basin, and built a 200-foot wharf that can accommodate 25-foot-draft vessels.  |
| 1910                           | The federal government takes over responsibility for the harbor; Kahului Railroad Company cedes all rights to the existing breakwater and agrees to make no financial claim on the government for harbor improvements already made.   |
| 1910 – July                    | A 40-foot lighthouse is established on the breakwater.  |
| 1910                           | The “Claudine Wharf,” as the inter-island wharf is known, is completed.   |
| 1911                           | Work on the breakwater continues, now under the control of the U.S. Engineers.  |
| 1913<br>– March,<br>July       | A project to add 75 feet to the breakwater is going forward on a rush basis, conducted by Kahului Railroad Company under contract to the War Department. The line for the new (west) breakwater has been surveyed and charted but Congress has not approved that project yet. The (east) breakwater extension is finished July 3.   |
| 1916<br>– August               | President Wilson signs a Rivers and Harbors appropriations bill that includes funding for the west breakwater.  |
| 1917 – July                    | Work starts on the west breakwater. Kahului Railroad Company is the contractor.   |
| 1918                           | More harbor dredging begins.  |
| 1922                           | Hawaiian Dredging Company is awarded the contract for the “inshore end” of Pier 1—consisting of “a concrete apron 500 feet long and a concrete shed 132' x 375', with steel trusses, wooden purlins and sheathing, tar and gravel roof.” Work begins in May.  |
| 1923 – June                    | Claudine Wharf is closed for repairs; goods and passengers are again moved by lighters.   |
| 1923<br>– August               | Pier 1 is completed and turned over to the Territory of Hawaii on August 29—but it is not completely open for business yet; the conveyors and other equipment are not installed. With 500 feet of berthing space, the new wharf is suitable for large steamers that the Claudine Wharf can’t accommodate.   |
| 1923<br>– September            | The new wharf is used for the first time on Sunday, September 23, by the lighthouse tender <i>Kukui</i> . (The facilities for moving freight are still not installed.) A few naval vessels use the wharf the following month.   |
| 1923<br>– October              | The Matson steam liner <i>Maui</i> berths at the new wharf, carrying aboard it an “excursion party” from the San Francisco Chamber of Commerce. Freight moving equipment has not yet been installed and the roadway to the wharf is not yet complete.   |
| 1923                           | An office building is built, fronting Main Street in a grove of coconut palms, and an 11-stall roundhouse is built soon after.  |

| Year                         | Event   |
|------------------------------|---|
| 1923-26                      | More workshops are built at the railway terminus in Kahului.  |
| 1924<br>– May                | Construction of the freight conveyor system (which required a separate bond issue to finance it) is finally underway. The approach road is completed on May 3 and taken over by the Territory two weeks later.  |
| 1924<br>– July               | Los Angeles Steamship Company announces that its two steamers, the <i>City of Los Angeles</i> and the <i>Calawaii</i> , will make regular visits to Kahului beginning the end of the month. The first visit (July 28) is a public relations disaster, as the <i>City of Los Angeles</i> has serious problems both docking and leaving the harbor. The first freight shipment goes out from the new wharf (probably on the <i>City of Los Angeles</i> , despite its earlier docking problems).   |
| 1924<br>– August to November | The Los Angeles Steamship Company announces it will not use the new wharf (instead, it will moor offshore and transfer passengers and freight by lighter). However, in mid-month the company's second steamer—the <i>Calawaii</i> , which is somewhat smaller and arrives in better weather—ties up at the wharf without a problem. Later, the <i>City of Los Angeles</i> also docks successfully several times, but in mid-November abandons the Kahului stopover for the winter because it considers it unsafe during the stronger winds. |
| 1924<br>– November           | The Territory of Hawaii buys the Claudine Wharf for \$25,000. The west breakwater loses 15 feet in a storm; so far it has lost 125 feet in “surface washout.”   |
| 1924<br>– December           | The Kahului wharves are congested, freight is piling up, and at least one ship has had to wait for its turn to unload. The Maui Chamber of Commerce labels the new wharf (which can only accommodate one large vessel at a time) “inadequate,” and calls for it to be lengthened.   |
| 1925<br>– February           | Claudine Wharf's piles give way; it's believed that ocean currents, possibly affected by recent harbor dredging, might have swept away sand supporting the piles.   |
| 1925<br>– October            | California Packing Company plans to build a cannery at Kahului; the increased business is seen as one more reason to move forward with harbor improvements.   |
| 1925<br>– November           | Kahului Railroad Company alerts the harbor board that water is eroding the road to Claudine Wharf, in front of the ticket office.   |
| 1926<br>– May                | The Los Angeles Chamber of Commerce announces it will skip its planned June visit onboard the <i>City of Los Angeles</i> because of safety issues.  |
| 1926<br>– June               | Steamers are again lining up waiting a turn to unload at the wharf.   |
| 1926<br>– October            | Harbor dredging, preliminary to construction of a new wharf (in about the same place as the Claudine Wharf but longer) is underway. The Claudine was declared unsafe “some time ago” but shippers are still using it. A part of it has already collapsed; this was expected, though, and the railroad tracks had already been moved in anticipation. Driving routes in the vicinity are already changing, and congestion and delays are expected.   |
| 1926<br>– October            | Around the harbor, Kahului Railroad Company is replacing its old wooden buildings, one by one, with “fine concrete structures of imposing dimensions.”  |
| 1927<br>– March              | Pier #1 is overcrowded. Kahului Railroad Company's manager, William Walsh, calls the older Claudine Wharf “dangerous to life and property” and says Maui is missing out on shipping because of the condition of the harbor.   |
| 1927 – May                   | Demolition of the Claudine Wharf begins May 3.  |
| 1927                         | The <i>Maui News</i> carries several articles in the second half of the year on port congestion and inconvenience during construction.  |

| Year               | Event   |
|--------------------|---|
| 1927<br>– December | There remain loose ends to tie up, but Wharf #2 (the replacement for the Claudine Wharf) is now open for business.  |
| 1928<br>– March    | The breakwaters are damaged in a storm; debris clutters harbor floor; shipping access is expected to be very limited until the seas calm down.  |
| 1929—May           | Construction is complete on the extension (“second unit”) of Pier 1.  |
| 1929<br>– November | A bad storm damages the east breakwater.  |
| 1930               | The extension to the Pier 1 shed is nearly complete and already in use.   |
| 1930<br>– October  | <p>“Pilikia Pau”—the <i>Maui News</i> summarizes harbor improvements:</p> <ul style="list-style-type: none"> <li>• The harbor is dredged to a minimum depth of 35 feet and a maximum width of 1,455 feet and is “now safe for large vessels.”</li> <li>• Pier 1 can accommodate two liners and an oil boat; Pier 2 can accommodate inter-island steamers and lumber carriers.</li> <li>• Work on the breakwater continues.</li> </ul>   |
| 1930<br>– December | The east breakwater is now complete and a lighthouse has been re-established on it—the Kahului East Breakwater Light, “a pyramidal skeleton tower the top 41 feet above water from which there flashes the light, visible ten miles away.” Work on the west breakwater continues.   |
| 1931<br>– August   | Matson Navigation Company includes Kahului on its San Francisco/ Honolulu/Hilo route.   |
| 1931<br>– August   | <p>This is the condition of the harbor:</p> <ul style="list-style-type: none"> <li>• It is dredged to 35 feet, with a 600-foot channel that is 40 feet deep or more.</li> <li>• Pier 1 (adjoining the east breakwater) has four rail tracks and a more modern conveyer system than Honolulu. It has a storage capacity of 70,000 tons of sugar, 375 cases of pineapple, and additional freight, and a “full complement of molasses and oil pipelines.” It is quickly paying for itself in storage and shipping fees.</li> <li>• Pier 2, at the site of the old Claudine Wharf, handles inter-island passengers and freight.</li> <li>• Between the two piers is “abundant anchorage for sampans and the mosquito fleet.”</li> </ul> |
| 1931<br>– October  | The west breakwater is finished.  |
| 1931<br>– December | The <i>Maui News</i> celebrates the end of a harbor improvement process that began in 1901.   |
| 1942               | Kahului Railroad Company builds the first bulk sugar plant in the Islands, with a 40,000-ton capacity, at Kahului Harbor.   |

Sources: Bartholomew, Best, Clare and Morrow Clark, Hungerford, Kuykendall 1982, *Maui News*, Nakayama, “Ports of the Sandwich Islands,” Rush, Stroup, United States Board of Engineers for Rivers and Harbors, Williams.

Note: This timeline is based on a quick search of the records, is necessarily incomplete, and contains references to places and events that may not be given full context here or in the main text.

## APPENDIX B.

### INDIVIDUALS AND GROUPS CONTACTED AND INTERVIEWED FOR THE CULTURAL IMPACT ASSESSMENT

#### CONTACTED FOR THIS STUDY

Scott Cunningham, Harbormaster  
 Mary Akiona, Executive Director, Hawaiian Canoe Club  
 Sharon Balidoy, Laeula O Kai Canoe Club  
 Gabby Gouveia, Na Kai Ewalu Canoe Club  
 Uncle Boogie, Head Coach Na Kai Ewalu, 38-year employee for Young Brothers  
 Iokepa Naeole, Past President of the Hawaiian Canoe Club  
 Ethel Ujie, former frequent visitor of Raw Fish Camp  
 Russel Okumura, former resident of Raw Fish Camp  
 Maui Historical Society  
 Mr. Ishikawa, long-term shoreline fisherman at Kahului  
 Rudy, long-term fisherman at Kahului  
 Dorothy Makimoto  
 Myoko Onaga  
 Fishermen (seven) at the “fish shack”  
 Paddlers (various with both clubs)

No surfers were located or observed in the project area during the study period.

#### CONTACTED FOR EARLIER STUDY

The following individuals provided oral histories for *An Evaluation of Traditional and Historical Land Uses in the Kahului Airport Area* (Prasad and Tomonari-Tuggle 1999).

|                                      |                  |
|--------------------------------------|------------------|
| <i>Kūpuna Charles (Charlie) Keau</i> | Glen Misubayashi |
| <i>Kūpuna Aaron Brown</i>            | Sam Ohigashi     |
| <i>Kūpuna Nancy Hokoana</i>          | Jon Sakamoto     |
| <i>Kūpuna Rene Sylva</i>             | Maizie Sanford   |
| Hiroshi Arisumi                      | William Tavares  |
| Richard Cameron                      | Barbara Woods    |
| George Ito                           | Joe McCabe       |





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## **APPENDIX C**

# **WATER QUALITY, MARINE BIOLOGICAL AND NATURAL RESOURCES IMPACTS ASSESSMENT**



Kahului Commercial Harbor 2025 Master Plan Environmental Assessment  
Water Quality, Marine Biological and Natural Resources Impacts Assessment

Prepared for:

E. K. Noda and Associates  
615 Piikoi Street, Suite 300  
Honolulu, Hawaii 96813

Prepared by:

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August 2003



## **Introduction**

Kahului Harbor is located on the south side of Kahului Bay on the north coast of the island of Maui (Figure 1). Waihee Reef extends 0.7-mile northwest of the breakwaters, and Spartan Reef extends 1.2 miles east of the breakwaters.

The commercial deep-water port of Kahului is on the southeast side of Kahului Harbor. The harbor is protected by two rubble mound breakwaters which extend outward from the east and west shores and enclose an area of about 200 acres. The entrance to the harbor is in deep water from the north through a 600-foot-wide opening between the outer ends of the breakwaters. The channel then turns sharply southeast to the Kahului Piers. The channel and basin are maintained at or near a 35-foot depth. The west part of the inner harbor is shallow. The southeastern shoreline consists of fine-grained sand beaches. The southwest shoreline is gravelly. The prevailing winds are the northeast trades, and harbor currents are weak.

Kahului has regular interisland barge service and is a port of call for transpacific vessels. Large vessels may anchor outside the breakwaters. Small craft have plenty of anchorage room in the unimproved areas behind the breakwaters. Vessels approaching the harbor entrance need to avoid the reefs. Product loading at Kahului Harbor occurs at Pier 3 located on the eastern side of the harbor within the commercial basin.

The State of Hawaii, Department of Transportation, Harbors Division (DOT-HAR) is proceeding with implementation of improvements at Kahului Harbor as outlined in the Kahului Commercial Harbor 2025 Master Plan, September 2000. An Environmental Assessment is being prepared under HRS 343 and possibly NEPA to assess the potential for significant impacts by the proposed harbor improvements. The proposed construction, particularly dredging and in-water construction, may have direct or indirect impacts on marine biological communities or natural resources.

In support of the EA, studies were conducted to address the potential for impacts to water quality, marine biological communities and natural marine resources in and adjacent Kahului Harbor as a result of the proposed improvements.

## **Water Quality Conditions**

### Methods

Water quality conditions within Kahului Harbor are influenced by a range of factors, including tidal exchange with nearshore waters outside the harbor, the pattern of flow and circulation within the harbor, surface discharge from surrounding lands during heavy rainfall events, and continuous discharge of nutrient-laden groundwater. The largest and longest term influences are expected to be related to season. In order to characterize in more detail the current water quality conditions in the harbor, water quality surveys were conducted on October 16, 2002, under light winds and scattered rain squalls, and on April 15, 2003, under strong trade winds.

Water quality parameters measured during the impact study include those listed in the State of Hawaii water quality criteria for marine waters. Additional parameters provide information on groundwater sources and potential public health problems, and have been measured in previous assessment and monitoring surveys. The instrumentation and methods used for each analysis are presented in Table 1.

On October 16, 2002, water samples were collected at eight shoreline stations (S1 – S8), one station located along the east arm of the harbor (E1), six stations within the harbor entrance channel and turning basin (H1 – H6), four stations in nearshore coastal waters immediately outside the harbor (NS 1 – NS4) and one station in the small stream which empties into the harbor along its western side (Stream). All station locations are shown in Figure 2. Samples could not be collected at a shallow nearshore station (NS5) and at stations along the western arm of the harbor (W1 – W2) because of high surf.

On April 15, 2003, water samples were collected at seven shoreline stations (S1 – S7), one station located along the east arm of the harbor (E1), three stations along the western arm of the harbor (W1 – W3), nine stations within the harbor entrance channel and turning basin (H1 – H9), and three stations in nearshore coastal waters immediately outside the harbor (NS2 – NS4). All station locations are shown in Figure 2. Samples could not be collected at a shallow nearshore stations (NS1, NS5) because of high surf.

For the shoreline stations on both surveys, a single sample was collected from just below the surface in water less than 0.5 m deep. For all other stations on October 16, three samples were collected: one just below the surface, one at mid-depth, and one 0.5 m above the bottom. On April 15, samples were collected just below the surface and 0.5 m above the bottom.

At each station on October 16, measurements of temperature and dissolved oxygen were made *in situ* with a portable temperature/DO sensor. For both surveys, water samples were collected with a Niskin bottle which was triggered to collect a sample at a specific depth. Upon retrieval, water samples were placed in 1 liter polyethylene bottles and held on ice for shipment to the analytical lab. On October 16, pH and turbidity were determined within 2 hours after collection. Upon receipt at the lab, subsamples of each sample were filtered for determination of total suspended solids and chlorophyll. The filtrate was analyzed for total dissolved nitrogen and phosphate, nitrate, nitrite, ammonium, reactive phosphate and silicate. Unfiltered subsamples were analyzed for salinity.

Table 1. Water quality parameters examined during the study, and analytical method.

| Water Quality Parameter          | Collection and Analysis Method   |
|----------------------------------|--|
| Dissolved Oxygen                 | Portable dissolved oxygen meter  |
| Temperature                      | Portable dissolved oxygen meter  |
| Salinity                         | Laboratory salinometer   |
| pH                               | Portable pH meter  |
| Water Samples:                   | 5-liter Niskin bottles   |
| Nutrients                        | Technicon AutoAnalyzer II;   |
| Total nitrogen                   | D'Elia et al., 1977  |
| NH <sub>4</sub>                  | Solorzano, 1969  |
| NO <sub>3</sub> /NO <sub>2</sub> | Technicon Inc., 1977   |
| Total Phosphorus                 | Grasshoff et al., 1983   |
| Orthophosphate                   | Murphy and Riley, 1962   |
| Silicate                         | Strickland and Parsons, 1972   |
| Chlorophyll                      | Filtration, acetone extraction,<br>Turner Designs fluorometer;<br>Strickland and Parsons, 1972 |
| Turbidity                        | Turner Designs nephelometer;<br>Standard Methods, 1992   |
| Total Suspended Solids           | Filtration, Cahn electrobalance<br>Standard Methods, 1992                                      |

## Results

Results of water quality analyses on samples collected at Kahului Harbor on October 16, 2002 are presented in Table 2. Samples were collected between 9:00 am and 12:20 pm, on a rising tide. Dissolved oxygen and temperature data were not collected at depths greater than 5 m, the length of the probe cable. The shallow bottom at station NS4 limited sampling depths to 2 m. Due to high surf breaking over the reef, samples were not collected at station NS5. Shallow bottom depths at stations H4 and H5 limited maximum sample depths to 8 and 5 m, respectively. An additional sample ("Stream") was collected in the small stream located at the eastern end of the harbor beach, approximately 50 m inland from the shoreline (Figure 2).

Water temperature was generally uniform between nearshore stations, and between surface and 5 m depths at nearshore stations. Within the harbor, surface waters tended to be 0.3 - 0.7 deg C cooler than 5 m depths, reflecting surface cooling associated with passing rain showers and light trade winds. Shoreline water temperatures were generally 0.3 - 0.5 deg C warmer than surface harbor waters, probably reflecting solar warming, as shoreline samples were collected in early afternoon.

Dissolved oxygen concentrations were generally typical of nearshore marine waters, ranging from 6.0 to 4.8 mg/l, values that are greater than 90% saturation at their respective temperatures and salinities. pH levels varied little and were typical of nearshore marine conditions.



Salinity levels were lower than typical for Hawaiian waters, ranging from 29.66 at the shoreline station S2 to 34.35 in nearshore samples outside the harbor. Depressed salinity levels reflected the recent input of freshwater by rain and runoff.

Turbidity levels were highly variable between nearshore stations, increasing from west to east, and reflecting visually-observed decreases in water clarity due to high surf and resuspended sediments on the western stations and both resuspended sediments and stream-borne sediments discharged during earlier heavy rains to the east. Nearshore turbidity levels ranged from 1.6 to 10.4 NTU. Turbidity levels within the harbor were not different from those in nearshore waters outside the harbor, and ranged from 1.9 to 9.4, with a very high value from a near-bottom sample (37.6 at E1). Turbidity levels at shoreline stations within the harbor (S2 - S7) reflected variable shoreline wave action and build-up of detached macroalgal material. Shoreline station S8 was taken to the east of the sewage treatment plant, in an area of high turbidity (234 NTU) consisting of red soil particles discharged from adjacent streams during recent heavy rainfall. Overall, Turbidity levels were highly significantly related to Total Suspended Solids ( $\text{Turb} = -147 + 4.95 * \text{TSS}$ ;  $r^2 = 0.81$ ,  $p < 0.01$ ), and showed the same patterns of distribution and concentrations.

Levels of dissolved nutrients reflected the strong influence of groundwater influx to the harbor. Plots of silicate vs. salinity, nitrate + nitrite vs. silicate and phosphate vs. silicate are presented in Figure 3a – c, respectively. Increasing levels of silicate with decreasing salinity reflect the dilution of low silicate nearshore coastal seawater with high silicate groundwater. The majority of the data fall along a single line; however a group of five samples with a lower silicate-salinity line comprise samples collected at S1 and NS 2 – 3, stations outside and to the north of the harbor. These data suggest a groundwater source with a somewhat decreased silicate load.

The nitrate + nitrite vs. silicate (Figure 3b) and phosphate vs. silicate (Figure 3c) plots show the strong relation between silicate and other dissolved nutrients, suggesting a common upland source. Only samples from shoreline station S2 and S3, located along the western shoreline of the harbor, showed a different nitrogen : silicate and phosphorus : silicate ratio, suggesting a local source of additional nutrients.

Chlorophyll levels were generally low and showed no systematic relationship to salinity (Figure 3d). Elevated chlorophyll levels were observed at shoreline stations (S2 – S4) along the western coastline of the harbor.

A second water quality survey was conducted in Kahului Harbor on April 15, 2003, during a period of strong trade winds. Results of this second survey are presented in Table 3. Samples were collected between 9:00 am and 12:20 pm, on a rising tide. Dissolved oxygen and temperature data were not collected during this survey, as the prior survey showed little horizontal or vertical variation in these parameters. The shallow bottom at station NS4 limited sampling to the surface sample only. Due to high surf breaking over the reef, samples were not collected at stations NS1 and NS5.

Water quality conditions at the nearshore stations outside the harbor were typically open coastal in nature, with higher salinity levels (34.14 – 34.89 ppt) than observed during the previous

survey under light Kona conditions. Levels of dissolved nutrients were consequently low, and typical of open coastal waters with little groundwater influence.

Waters within the harbor were highly stratified, despite the strong wind conditions. Salinity at stations along the western portion of the harbor (H3, H5, H6, H7, H8 and H9) showed salinity levels of 35 ppt in near-bottom samples, and salinity levels of 29.77 – 33.82 ppt in surface samples. Reflecting the strong groundwater input, dissolved nutrient levels were also elevated in surface samples, with NO<sub>2</sub>+NO<sub>3</sub> levels ranging from 10.2 – 30.6 uM, and NH<sub>4</sub> levels ranging from 0.58 – 2.44 uM.

Samples collected along the shoreline again showed strong influence of groundwater, with salinity of samples collected within the western part of the harbor (S2 – S6) ranging from 27.2 – 32.59 ppt. Lowest salinities were observed at stations S3 and S4, located in the southwest corner of the harbor. Salinity at station S1, a shoreline station on the northern face of the western breakwater, outside the harbor, was similar to open coastal waters (34.39 ppt), as was salinity at S7, near the base of Pier 1 (34.67 ppt).

Levels of dissolved nutrients again reflected the strong influence of groundwater influx to the harbor. Plots of silicate vs. salinity, nitrate + nitrite vs. silicate and phosphate vs. silicate are presented for the April 15 survey data in Figure 4a – c, respectively. Increasing levels of silicate with decreasing salinity reflect the dilution of low silicate nearshore coastal seawater with high silicate groundwater. The majority of the data fall along a single line, suggesting a single groundwater source.

The nitrate + nitrite vs. silicate (Figure 4b) and phosphate vs. silicate (Figure 4c) plots show the strong relation between silicate and other dissolved nutrients, suggesting a common terrestrial source. Samples from shoreline stations S2 and S3, located along the western shoreline of the harbor, showed different nitrogen:silicate and phosphorus:silicate ratios, suggesting a local source of additional nutrients, or localized nutrient uptake.

Chlorophyll levels were generally low and showed no systematic relationship to salinity (Figure 3d).

## **Marine Biological Conditions**

Nearby marine benthic and fish communities may be impacted by the transport and deposition of sediment suspended during construction and harbor dredging, or by changes in water quality. To assess the magnitude of these potential impacts, the nearshore biological communities have been characterized through compilation of historical data from the Kahului Harbor and immediate vicinity. The Maui Coastal Resource Inventory (AECOS, 1981) was the primary source of the following descriptive marine biological characterization.

### **Kahului Bay and Kahului Harbor**

The general bathymetry of Kahului Bay, Kahului Harbor and adjacent coastal waters is shown in Figure 5. Kahului Bay is a broad embayment between the slopes of two volcanoes: Haleakala

and West Maui. A sand channel entering Kahului Bay is believed to be a relic feature representing the ancient drainage course of Waikapu Stream.

Kahului Harbor, a fan-shaped basin at the head of Kahului Bay, is bounded on the east and northwest by long boulder and dolose breakwaters. The sand shoreline at the head of Kahului Harbor between Pier 2 and the shore along Kahului Beach Road is known as Kahului Beach. The beach is composed of brown, detrital sand and is broken by several boulder jetties built to retard erosion. Much of the southwest shoreline between the extreme south corner of the harbor and the coral fill area is a beach of gravel to boulder size rubble.

Much of the southern and southwestern perimeter of the harbor is fringed by a shallow reef shelf extending a few hundred feet offshore. Beyond the reef edge, the harbor bottom is a terrace of silty-sand and limestone rubble dipping gradually seaward to depths of over 50 feet (15 m). Off the sand beach west of Pier 2 is a sand bottom extending to a depth of 10 feet (3 m). Here, consolidated rock pocketed by sand is encountered. The seaward edge of this formation drops to the dredged basin forming the eastern portions of the harbor.

Sand bottom occurs at depths greater than 30 feet (9 m) outside the mouth of Kahului Harbor. The west breakwater overlies an irregular reef whose margin is about 15 feet (5 m) deep. Here, the limestone platform drops a short distance to a sand bottom continuing offshore from a depth of about 20 feet.

The crab, *Macrophthalmus telescopicus*, is the most conspicuous inhabitant of the silty-sand bottom nearshore between Piers 1 and 2 in the eastern harbor. Less common are solitary tunicates and a few small solitary heads of the coral, *Montipora* sp., in poor condition. *Mugil cephalus*, *Selar crumenophthalmus*, *Decapterus macarellus*, *Acanthurus triostegus*, *Etrumeus micropus*, *Kuhlia sandvicensis*, *Caranx ignobilis*, and *Chanos chanos* are reportedly common within the harbor.

#### East of Kahului Harbor

A shallow reef extends west from Pa'ia toward Kahului Harbor. The reef margin lies generally one-quarter mile offshore. A narrow band of sand borders the beach off much of the shore, but most of the reef platform is consolidated reef rock. The reef slopes to a depth of about 15 feet (5 m) over 1,000 feet (300 m) offshore from Ka'a. The limestone platform displays complex relief in the form of numerous arches, overhangs, and projections above the bottom. Surge channels and sand pockets occur over the surface of reef rock. Coral cover is sparse over the reef flat, but approaches 60% along the reef edge over 1,000 feet off Ka'a. *Porites lobata* is most abundant, although nearly equaled in abundance by *Montipora flabellata*. Algae are sparse, covering less than 5% of the bottom. *Laurencia* sp. is the most common species. The soft coral, *Palythoa tuberculosa*, is conspicuous. *Scarus* sp., *Acanthurus leucopareus*, *A. triostegus*, *Kyphosus* sp., and juvenile carangids dominate the fish assemblage.

Off the MECO plant the reef has a smooth surface 5 to 10 feet deep extending offshore a distance of about half a mile (800 m), beyond which the bottom drops abruptly. The reef surface is irregular off Hobron Point where depths of 30 to 35 feet (9 to 11 m) are reached within 1,000

feet from shore. The reef face is a steep drop-off to a deep sand bottom off of the east breakwater of Kahului Harbor. Hard corals are scarce and scattered along this high energy shallow reef. The red alga, *Acanthophora spicifera*, is the most common fleshy alga on the reef. Encrusting coralline algae are also abundant. The green algae, *Enteromorpha* and *Cladophoropsis*, increase in abundance near the thermal discharge of the MECO power station. Polychaetes, alpheid shrimp, xanthid crabs, and brittlestars are abundant in substratum samples taken from the reef fronting the power generating station.

#### Northwest of Kahului Harbor

The shoreline extending north from the west breakwater to Nehe Point is a continuous, narrow beach of rubble and boulders. A reef extends along the coast northwest of Kahului Harbor. The outer part of the limestone shelf off Paukukalo Beach is irregular with high vertical relief. Projections of reef rock rise above sand pockets from a depth of 15 feet (3 m). Small overhangs of reef rock occur along the sides of sand-bottom surge channels. Coral cover reaches 35% on the deeper slopes of the irregular reef flanking the west breakwater. *Montipora patula* is dominant. Algae are generally sparse, but total cover approaches 15% in places. *Halymenia formosa* and *Amansia glomerata* are most common. *Thalassoma duperreyi*, *Stegastes fasciolatus*, *Bodianus bilunulatus*, and *Plectroglyphidodon imparipennis* dominate the fish assemblage. Green sea turtles, *Chelonia mydas*, may be seen outside the western breakwater. The mussel, *Brachidontes crebristriatus*, is abundant in shallow waters off the east breakwater.

A submerged fringing reef fronts the coast between Kahului and Waihee Point. Southeast of Waiehu Point, the reef narrows to about 500 feet, half the width of the Waihe'e reef section. Volcanic rubble covers the back reef at the base of the beach. Just offshore the consolidated reef platform is covered by limestone rubble, interspersed with sand pockets. In some areas, reef rock rises above the rubble and provides vertical relief. The reef platform slopes gradually to a depth of about 6 feet (2 m) some 500 feet from shore. Near the reef edge, limestone rubble diminishes and sand deposits are predominant. Beyond the reef margin is a steep-sloping reef front. A sand channel (Kawili Channel) crosses the reef and approaches shore near the mouth of Waiehu Stream. Coral cover approaches 40% on the outer part of the reef bordering Paukukalo Beach. *Montipora patula* is most common. The sea urchin, *Echinothrix* sp., is abundant. Fleshy algae cover up to 10% of the bottom, with *Martensia* sp. predominating. *Rhinecanthus rectangulus*, *Chaetodon fremblii*, *Thalassoma purpurum*, *Acanthurus dussumieri*, and *A. triostegus* are the most conspicuous fishes.

The outer part of the reef off Ka'ehu Beach is a consolidated limestone shelf furrowed by numerous surge channels and sand pockets. Vertical relief is high. Limestone ridges project some 12 feet (4 m) above sand pockets at -20 feet (-6 m). Coral cover averages 20% on the outer part of the reef fronting Ka'ehu Beach. *Montipora patula* is most abundant. The soft coral, *Palythoa tuberculosa*, is common. Algal cover approaches 10%. *Martensia* sp. is most abundant. Few fishes are present: *Acanthurus triostegus* and *Thalassoma ballieui* are most conspicuous.

Off Waiehu Beach Park, the reef platform is interrupted by numerous surge channels, but vertical relief is less than in areas to the southeast. Sparse coral growth and few fishes characterize the

reef platform fronting Waiehu Beach Park. However, this area is rich in algae, which covers about 75% of the bottom near shore, thinning out to 30% cover with increasing depth. *Ulva fasciata* and *U. reticulata* are the most abundant of at least 16 species (and one angiosperm), including several edible varieties. Only a few species of fishes are recorded in shallow waters between shore and the reef edge. Corals are abundant on the outer reef where at least 12 species are represented. *Porites lobata* dominates the cover, which totals 80%. The solitary coral, *Fungia scutaria*, is common, as well as *Montipora patula*. *Acanthurus dussumieri* is the most abundant fish.

## Impact Analysis

The potential for significant impacts to regional water quality and adjacent marine communities due to the proposed Kahului Harbor improvements is small. Water quality conditions within the harbor and in adjacent open coastal waters are influenced primarily by the input of nutrient-rich groundwater and the resuspension of sediment by wave action. Groundwater input occurs all along the coastline, but appears to be higher than usual in the southwest corner of the harbor. Lowered salinity values and high levels of dissolved nutrients in this area demonstrate the localized source. Water quality conditions within the harbor and nearby coastal waters reflect the simple physical mixing of the high nutrient groundwater with low nutrient coastal water. None of the proposed harbor improvements will alter the quality of groundwater entering coastal waters, or change the location of groundwater discharge.

Physical oceanographic studies (EKNA, 2003) examined current patterns and water exchange rates in Kahului Harbor under several wind and tide conditions. Current studies using surface and subsurface drogues showed a generally closed circulation within the harbor, with little exchange with waters outside the harbor over a tidal cycle. Under strong trade wind conditions, surface flow was across the harbor to the west and over the shallow reef along the western side of the harbor. These circulation patterns tend to minimize the impact of sediment generated by construction activities on communities outside the harbor.

While some sediment and turbidity may be generated by the proposed construction activities, its impact on water quality and marine communities will be small. Levels of suspended particulates in the waters of the harbor and adjacent coastal waters are primarily the result of resuspension of bottom sediment by strong winds and/or wave action. The harbor basin is characterized by a bottom comprised of sand and mud. Under strong trade winds, vertical mixing may bring fine sediment suspended near the bottom up into surface waters. Ship traffic, especially large ships with drafts approaching the harbor bottom depth, can resuspend large amounts of sediment as they maneuver within the harbor. Typical surf outside the harbor also keeps fine sediment particles suspended in a layer 1 – 2 m in thickness above the bottom (pers. obs.). Within this system of naturally-occurring high turbidity and suspended solids loads, the addition of small, localized sediment sources will have little incremental impact.

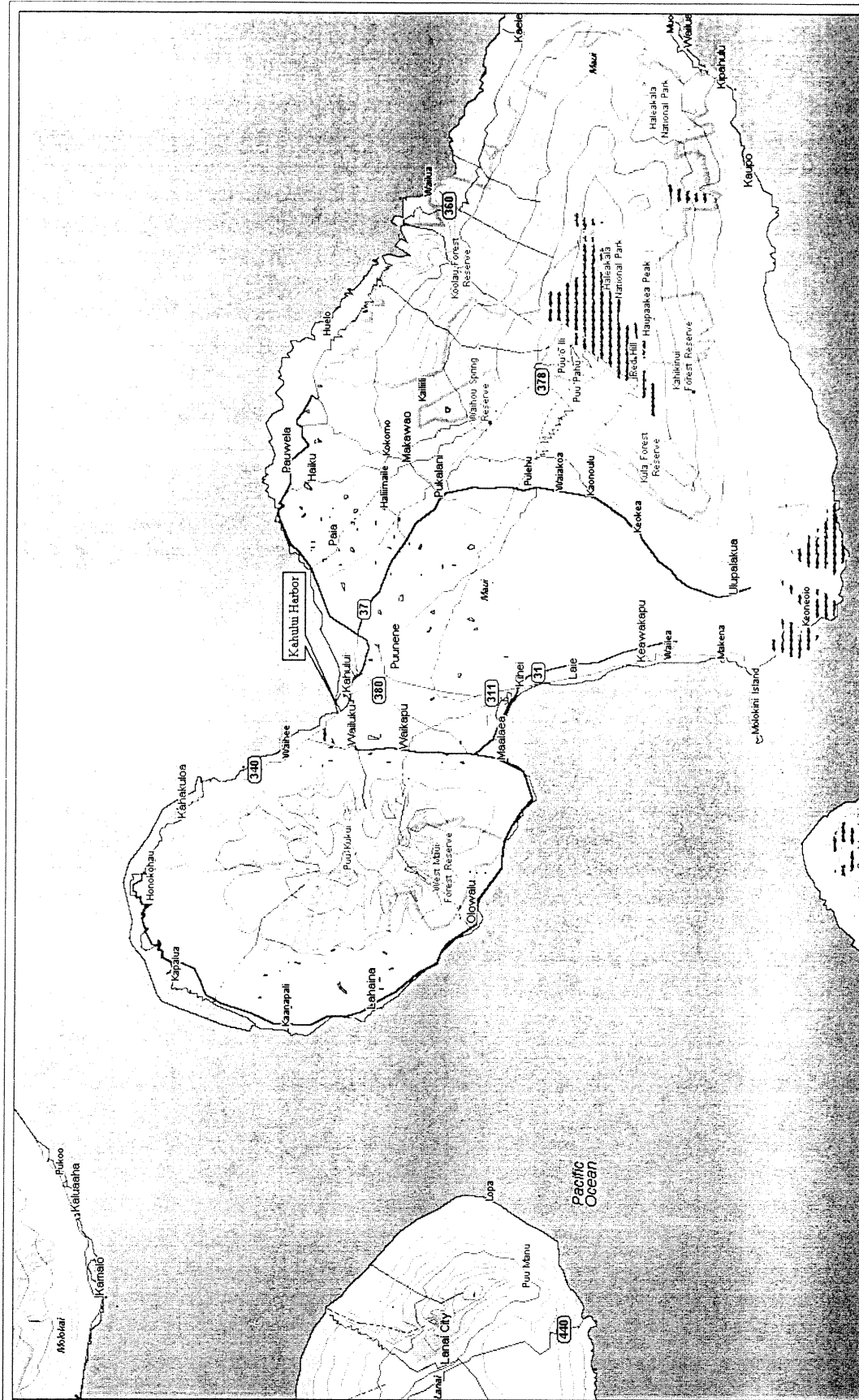
The location and distribution of general bottom types within and in the vicinity of the mouth of Kahului Harbor can be seen in aerial photographs of the area taken May 24, 2000 (Plate 1). The edges of bottom features have been enhanced for clarity in the color plate. The extensive sandy-mud bottom of the harbor extends for a long distance to the north outside the harbor mouth.

Bottom depths range from approximately 30 feet at the harbor mouth to 60 feet at a distance of 1 km from the harbor mouth. Fringing reefs for several km on either side of the harbor (Figure 5) comprise scoured reef platforms with sparse coral and fish communities.

The area outside the harbor mouth potentially impacted by sediment from the harbor is small. Sea Engineering, Inc. (SEI, 2000) conducted a modeling study of sediment transport associated with the proposed dredging of additional berthing space in Kalaeloa Barbers Point Harbor, Oahu. Kalaeloa Barbers Point Harbor is similar to Kahului Harbor in having a harbor basin connected to coastal waters by a narrow entrance channel. The SEI study concluded that turbidity levels would rarely exceed ambient levels by 1 NTU at distances of 1 km from the harbor entrance. Since no dredging is proposed for the Kahului Harbor improvement project, these modeling results for Kalaeloa Barbers Point Harbor represent a worst-case scenario for Kahului Harbor. Construction-related turbidity is likely to remain within the harbor, or to be discharged through the harbor mouth into coastal waters where mixing and transport would rapidly disperse any turbidity plume, probably within less than 1 km from the harbor mouth.

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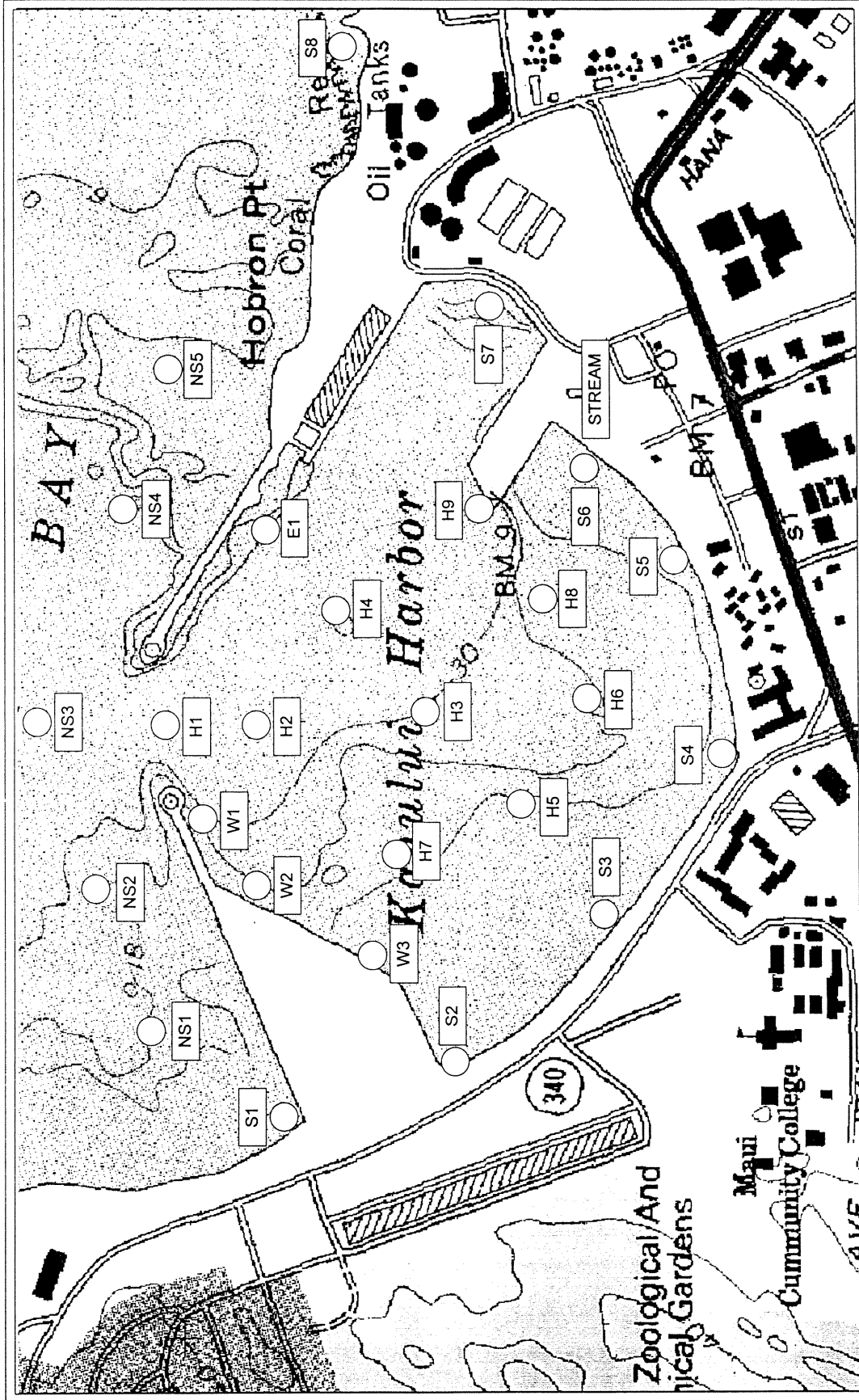
Kahului Commercial Harbor 2025 Master Plan Environmental Assessment

# Kahului Harbor Location

**The Oceanic Institute**  
Makapuu Point  
Waimanalo, Hawaii 96795







Kahului Commercial Harbor 2025 Master Plan Environmental Assessment

Figure  
2

Location of Water Quality Survey Stations ○

The Oceanic Institute  
Makapuu Point  
Waimanalo, Hawaii 96795



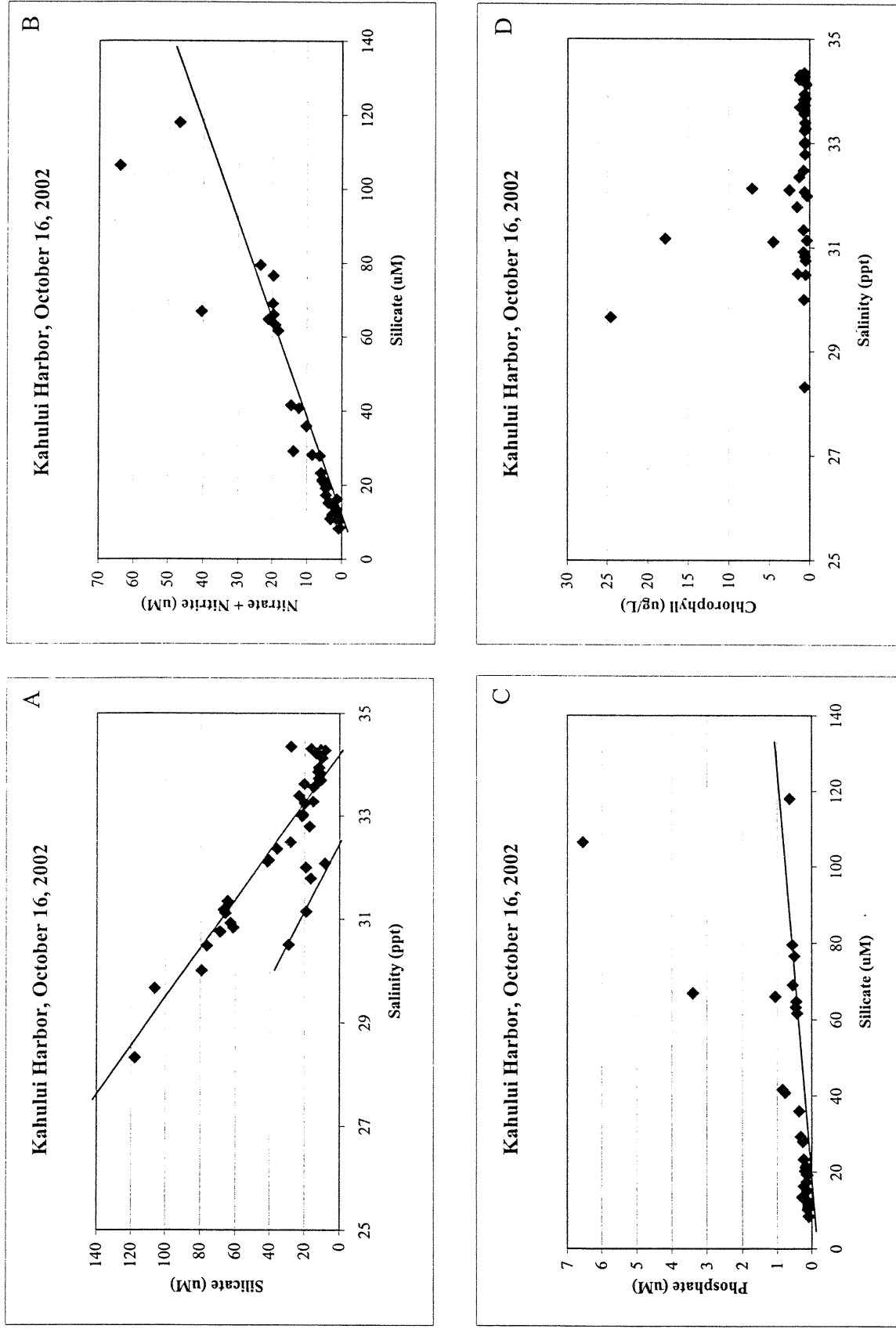


Figure 3. Plots of water quality data for survey conducted at Kahului Harbor, Hawaii, on October 16, 2002.



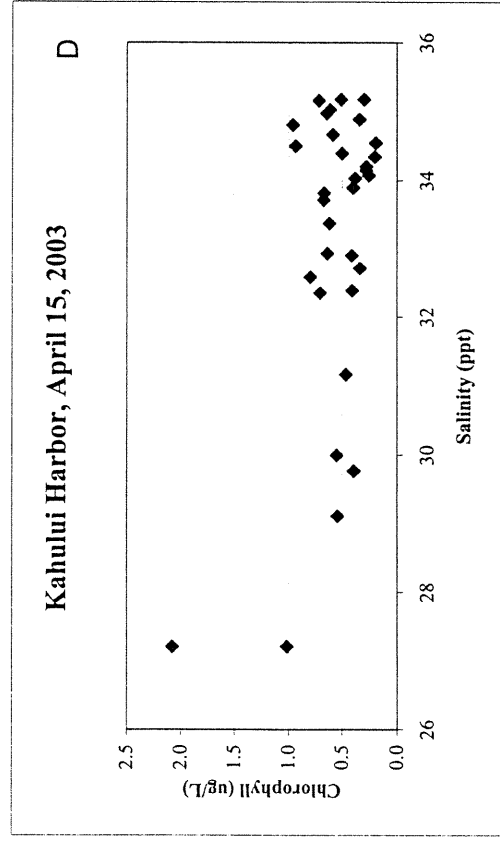
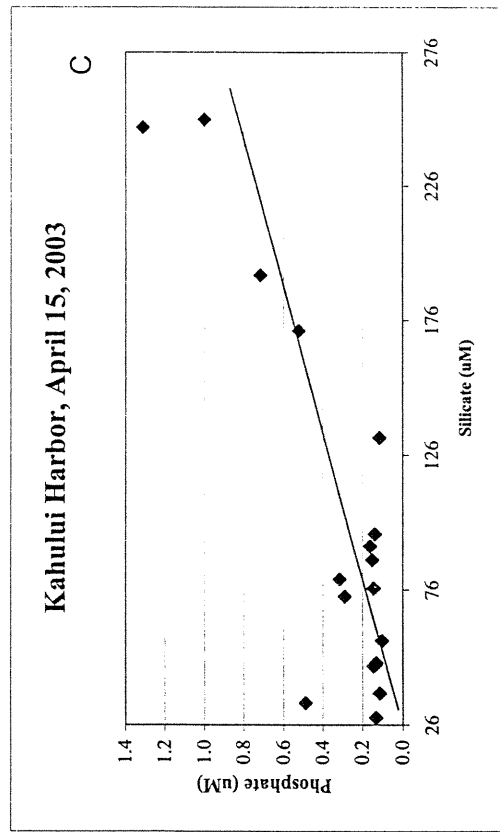
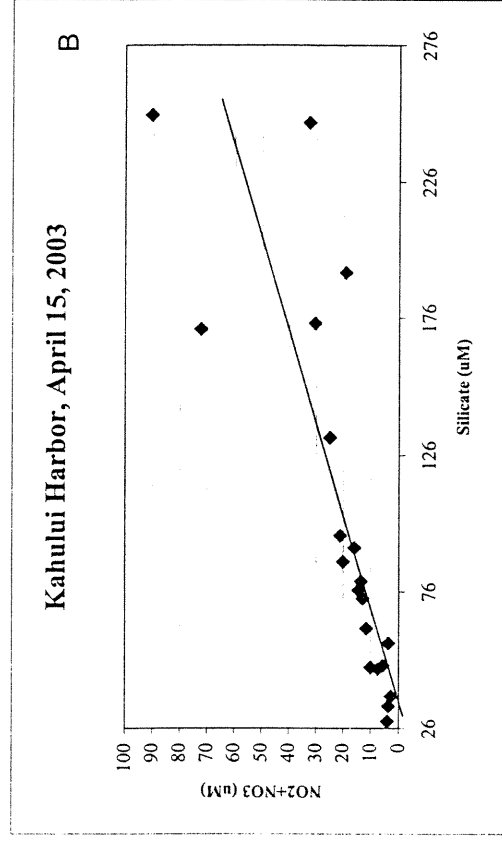
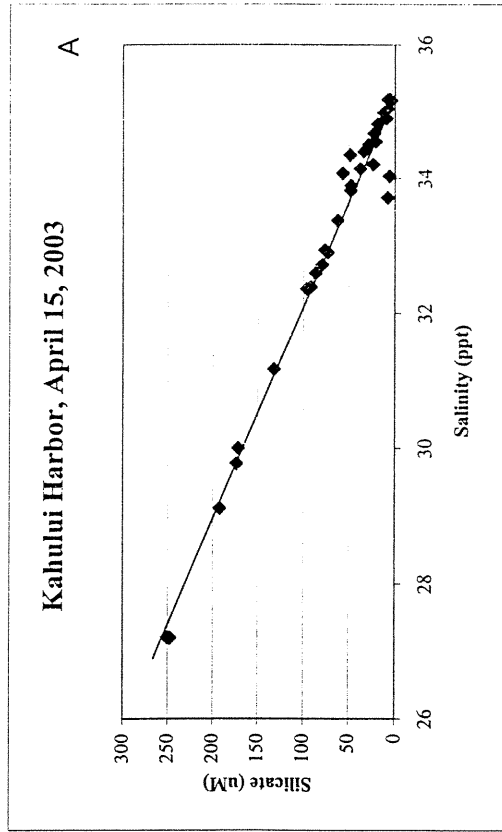
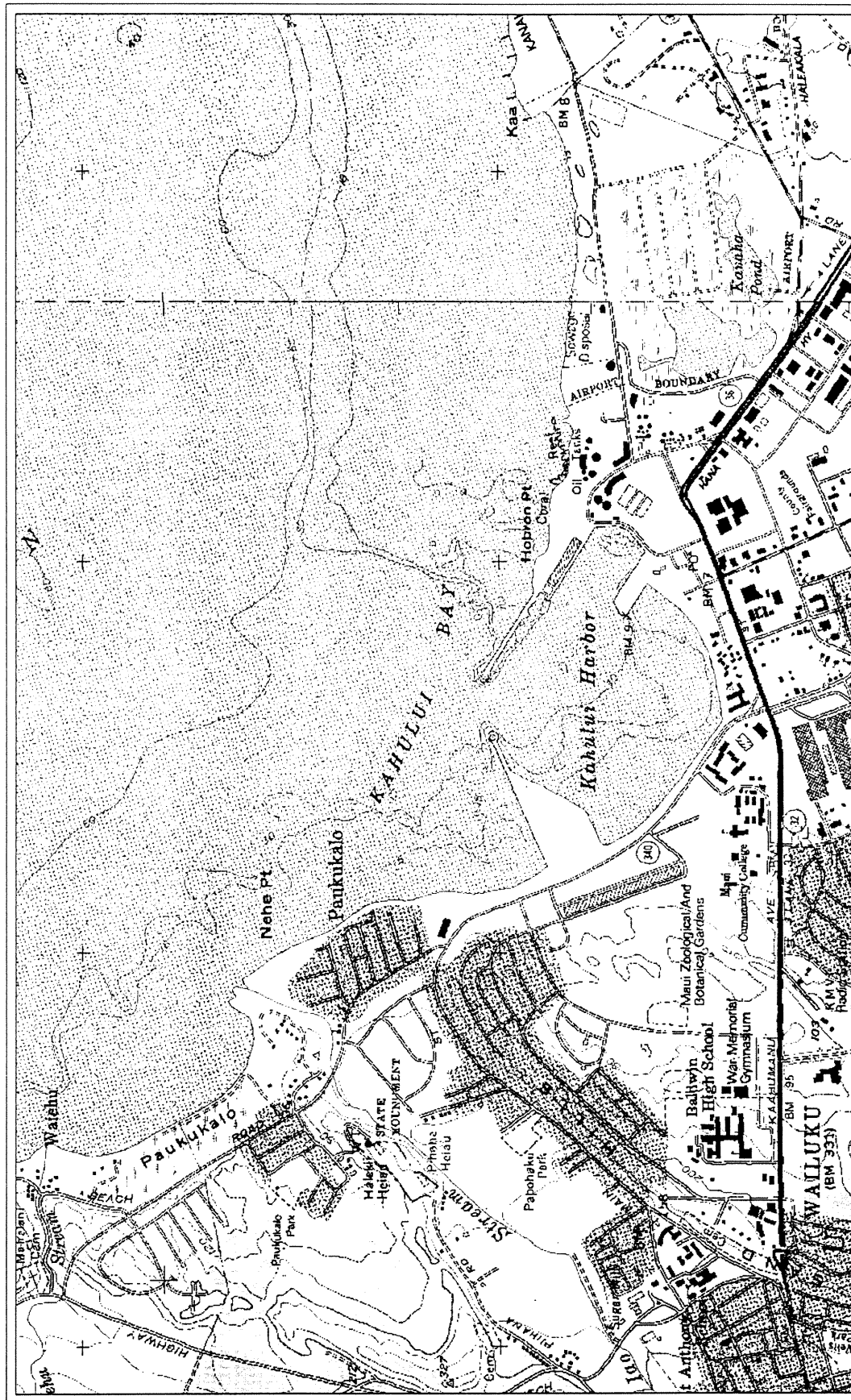


Figure 4. Plots of water quality data for survey conducted at Kahului Harbor, Hawaii on April 15, 2003.





Kahului Commercial Harbor 2025 Master Plan Environmental Assessment

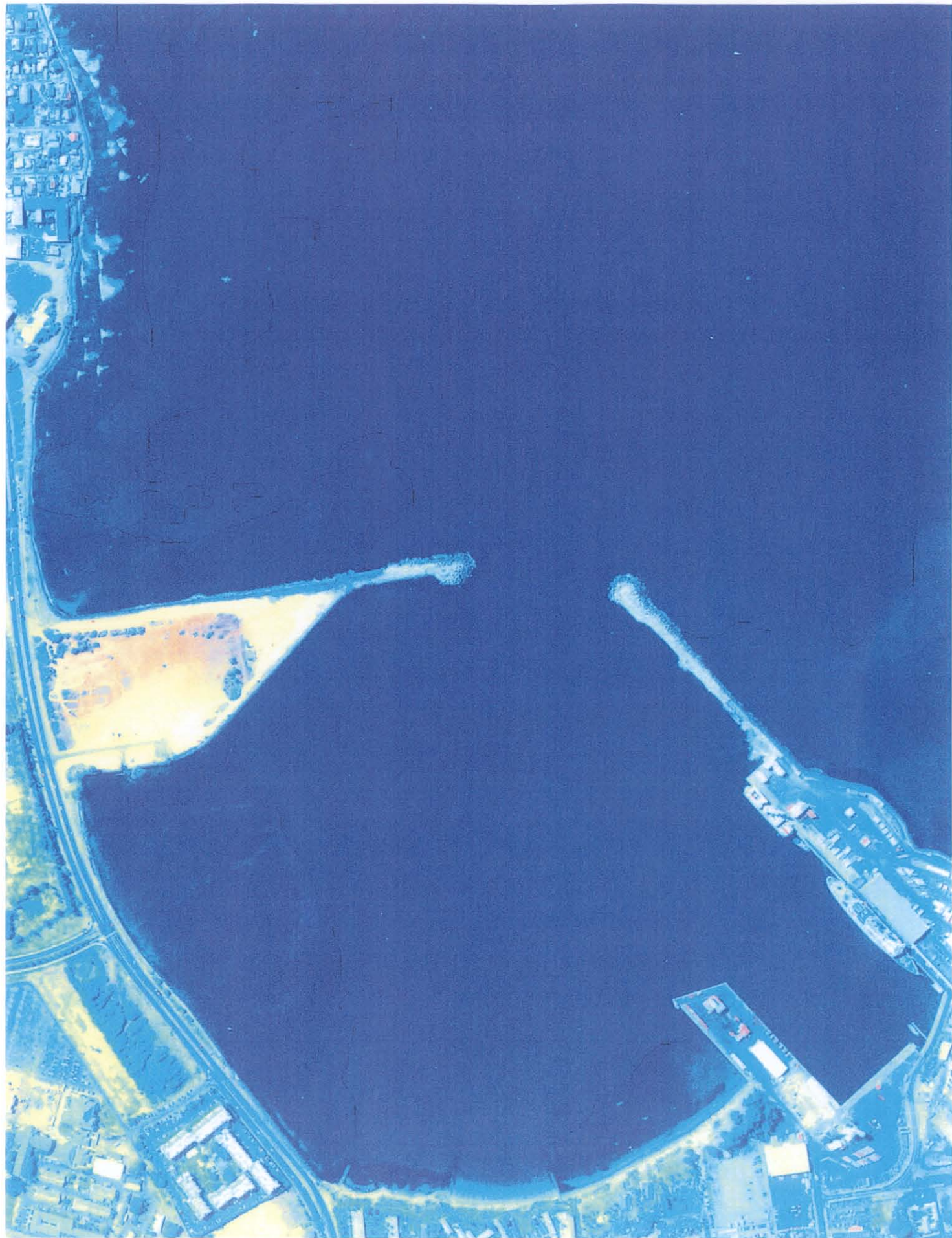
The Oceanic Institute  
 Makapuu Point  
 Waimanalo, Hawaii 96795

Figure  
 5

# Kahului Harbor Offshore Bathymetry







## **APPENDIX D**

### **KAHULUI HARBOR CURRENT DROGUE MEASUREMENTS AND CTD PROFILES**



**KAHULUI HARBOR CURRENT DROGUE MEASUREMENTS  
AND CTD PROFILES  
KAHULUI, MAUI, HAWAII**

Prepared For:

**STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HARBORS DIVISION**

Prepared By:

**Edward K. Noda and Associates, Inc  
615 Piikoi Street, Suite 300  
Honolulu, Hawaii 96814**

**September 2003**



KAHULUI HARBOR CURRENT DROGUE MEASUREMENTS  
AND CTD PROFILES  
KAHULUI, MAUI, HAWAII

Kahului Field Measurement Results.

October 15 Drogue Measurements (See Figure)

Drogue measurements on this day were taken during the ebb stage of the tide. The weather was sunny to partly sunny and the wind was light and variable tending weakly from the south toward the end of the measurement period. Six drogues were deployed from west to east across the middle of the harbor. Three were set to measure currents at 25 foot depth and three were set for shallow currents at five foot depth. The deep drogues traveled generally from the south to north during the measurement period at average speeds of 2.5 to 3.6 cm/sec, whereas the shallow drogues traveled north to south at average speeds of 3.6 to 4.1 cm/sec, with the exception of the drogue deployed in the basin between Piers 1 and 2. This drogue traveled from the southwest to the northeast throughout the measurement period at an average speed of 3.4 cm/sec.

October 17 Drogue Measurements (See Figure)

Drogue measurements on this day were taken during the flood stage of the tide. The weather was generally cloudy and rainy with light to no wind. A total of ten drogues were deployed near the mouth of the harbor. Six physical drogues were used for these ten deployments. If a drogue exited the harbor it was picked up and redeployed within the harbor mouth. Also during this measurement period the drogues had to be picked up and redeployed due to barge traffic into and out of the harbor. Three drogues were set to measure at the 25 foot water depth and three drogues at the 5 foot water depth. Of the ten deployments four were at the 25 foot depth and six at the 5 foot depth. The deep drogues tended to travel into the harbor from the mouth moving generally from the north to the south at average speeds of 2.9 to 3.4 cm/sec. All of the shallow drogues deployed near the mouth tended to travel out of the harbor moving from south to north at average speeds of 3.5 to 6.2 cm/sec.

April 15 Drogue Measurements (See Figure)

Drogue measurements on this day were taken during the flood stage through high tide and into the ebb stage. The weather was mostly sunny with steady 20 knot trade winds. A total of nine drogues were deployed throughout the day. Three drogues were set to measure at the 25 foot depth and six were set to measure at the 5 foot depth. They were deployed across the harbor in a line approximately midway between the harbor mouth and the middle of the harbor. In all cases the drogues tended to travel from the northeast to the southwest showing the direct influence of the trade winds on the circulation pattern in the harbor. The average speeds of the deep drogues ranged from 2.9 to 6.3 cm/sec and for the shallow drogues from 6.5 to 14.7 cm/sec. None of the flow variability of the October drogue measurements was evident in this data set.

April 15 CTD Measurements (See Figures)

The temperature profiles during the flood stage show near the mouth of the harbor (NS3 and

H1) a 1 degree warmer layer of water from 20 to 30 feet deep between cooler upper and lower layers of water. The cooler surface layer is persistent throughout nearly all stations measured. During the ebb stage in the late afternoon the measurements show the surface layer to be warmer than the deeper layers by 1 degree.

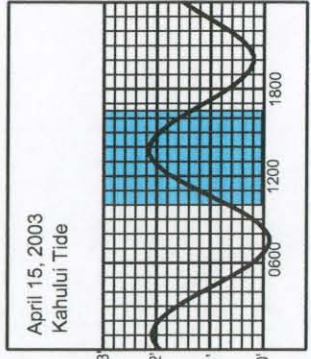
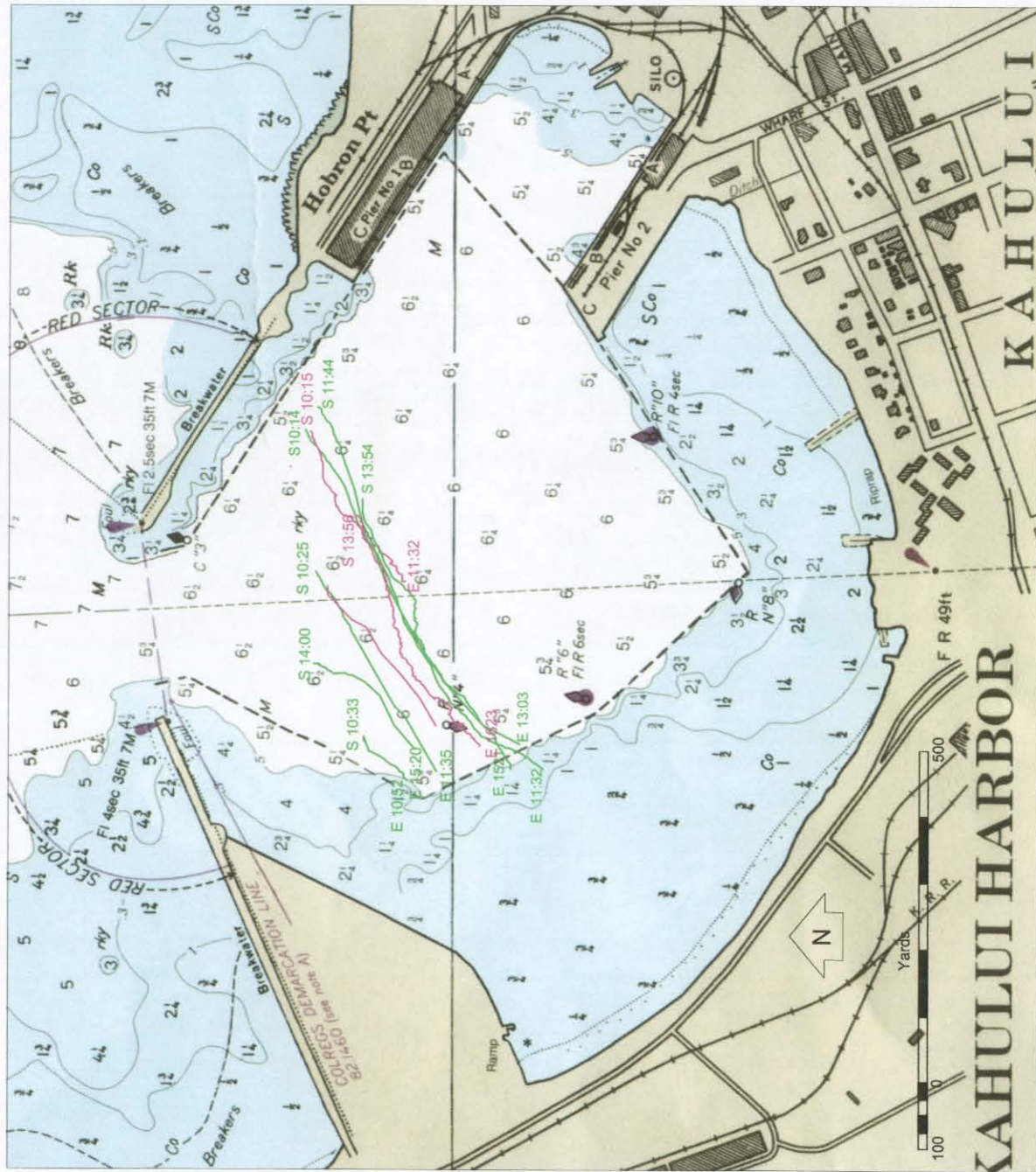
The salinity profiles during the flood stage show this warmer layer to be more saline than the surface layers. This suggests that the surface layer is composed of a mixture of ocean and fresh water from some source within the harbor. It should be noted that the Near Shore Station 1 (NS1) which is located outside the harbor shows similar characteristics suggesting a coastal fresh water source. The salinity variation from surface to bottom is much more evident in the near shore stations on the southern side of the harbor (H5, H6, H7 and H8). The source of this fresh water layer is not currently known. It is not attributed to a local rainfall event as rain did not occur prior to or during this measuring period. It is suggested that it is from a fresh water source located near the shoreline. At stations on the east side of the harbor closer to Pier 1 the variation from surface to bottom is not as wide ranging as the rest of the harbor. This suggests that the fresh water source occurs along the southwestern shoreline of the harbor. The salinity profiles during the ebb stage show the same general results of a less saline layer overlying a more saline layer but with a more pronounced fresher layer of water occurring from the southern part of the harbor towards the mouth. This is especially evident at station H3.

The density profiles ( $\sigma_t$ ) during the flood stage show the water mass to be generally vertically stable throughout the harbor except near the harbor mouth. This suggests a generally stratified water mass throughout most of the harbor with a fresh surface water layer overlying a more saline layer. During the flood stage the profiles near the mouth( NS3 , H1 and H2) suggest that warmer denser saline water enters the harbor below a discharging fresh water layer. This is a typical salt water- fresh water tidal mixing characteristic at narrow openings. The instability shown on the  $\sigma_t$  profiles at NS3 and H1 support this and suggests vertical mixing of the two layers occurs near the mouth of the harbor. The density profiles during the ebb stage suggest the same generally stratified water mass as the flood stage throughout the harbor except that the instability at the mouth of the harbor disappears.

## Summary

Surface winds have a major effect on the circulation within the harbor. As shown on a typical strong trade wind day of April 15 the flow in the middle of the harbor tends to flow in the direction of the wind. If the wind is absent then the circulation is tidally driven as shown by the measurements of October 15 and 17 and tends to be counter-clockwise especially in the deeper basin. Near the mouth of the harbor a two layer flow is evident as shown by the drogue results of October 17 and the CTD profiles of April 15 with saline water entering the harbor on a flood tide below a layer of fresher water that is leaving the harbor. The CTD profiles show that fresh water enters the harbor basin from the south western shoreline and mixes with the saline water. The mixing results with a generally stratified water mass throughout the harbor except as noted at the harbor mouth.





April 15, 2003

| TIME (HST) | Wind Spd (knots) | Wind Dir (deg T) | Weather  |
|------------|------------------|------------------|----------|
| 10:14      | 20               | 50               | Pty Cldy |
| 11:35      | 19               | 50               | Sunny    |
| 12:36      | 21               | 50               | Sunny    |
| 13:40      | 22               | 50               | Pty Cldy |
| 14:41      | 23               | 50               | Sunny    |

### LEGEND

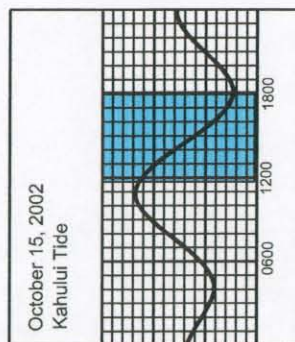
| Start Time | Depth   | End Time |
|------------|---------|----------|
| S 10:00    | 25 feet | E 12:00  |
| S 10:00    | 5 feet  | E 12:00  |

Drogue Survey Results  
15 April 2003

Kahului Commercial Harbor  
2025 Master Plan EA

Edward K. Noda  
and Associates, Inc.





October 15, 2002  
Kahului Tide

October 15, 2002

| TIME<br>(HST) | Wind Spd<br>(knots) | Wind Dir<br>(deg T) | Weather    |
|---------------|---------------------|---------------------|------------|
| 13:13         | 3                   | 0                   | Sunny      |
| 1349          | 5                   | 20                  | Pty Cloudy |
| 1430          | 0                   | 0                   | Cloudy     |
| 1439          | 10                  | 180                 | Cloudy     |
| 1455          | 5                   | 180                 | Pty Sunny  |
| 1700          | 5                   | 180                 | Pty Sunny  |

## LEGEND

| Start Time | Depth   | End Time |
|------------|---------|----------|
| S 10:00    | 25 feet | E 12:00  |
| S 10:00    | 5 feet  | E 12:00  |

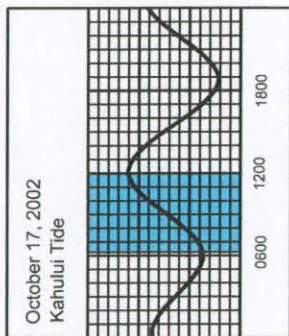
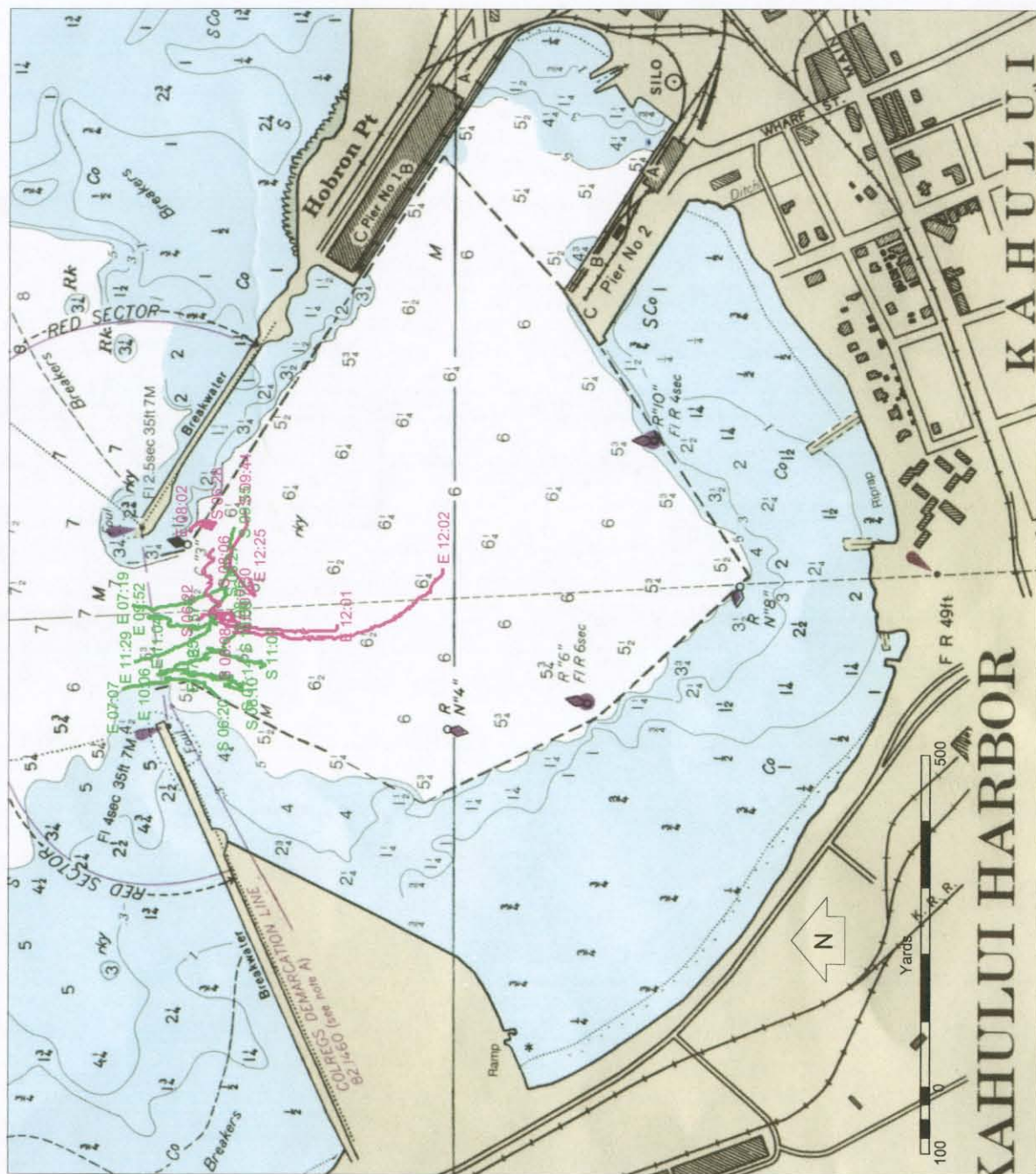
Kahului Commercial Harbor  
2025 Master Plan EA

Drogue Survey Results  
15 October 2002 Ebb Tide



Edward K. Noda  
and Associates, Inc.





October 17, 2002

| TIME<br>(HST) | Wind Spd<br>(knots) | Wind Dir<br>(deg T) | Weather     |
|---------------|---------------------|---------------------|-------------|
| 06:38         | 2.5                 | 90                  | Cldy & Rain |
| 07:41         | 1                   | 90                  | Cldy & Rain |
| 10:16         | 0                   | 0                   | Cldy & Rain |
| 10:42         | 0                   | 0                   | Cldy & Rain |
| 12:00         | 0                   | 0                   | Sunny       |

## LEGEND

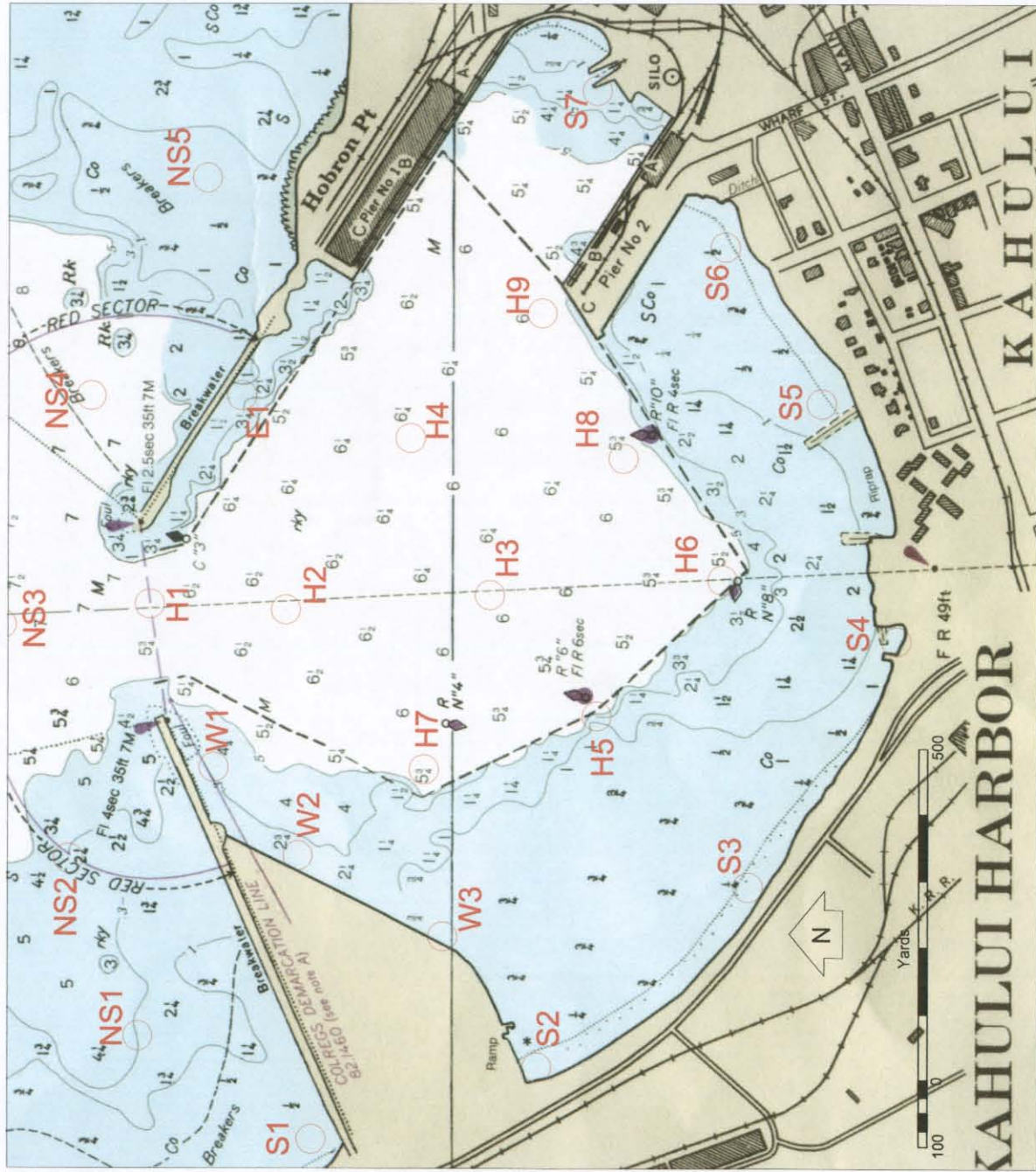
| Start Time | Depth   | End Time |
|------------|---------|----------|
| S 10:00    | 25 feet | E 12:00  |
| S 10:00    | 5 feet  | E 12:00  |

Kahului Commercial Harbor  
2025 Master Plan EA

Edward K. Noda  
and Associates, Inc.

Drogue Survey Results  
17 October 2002 Flood Tide



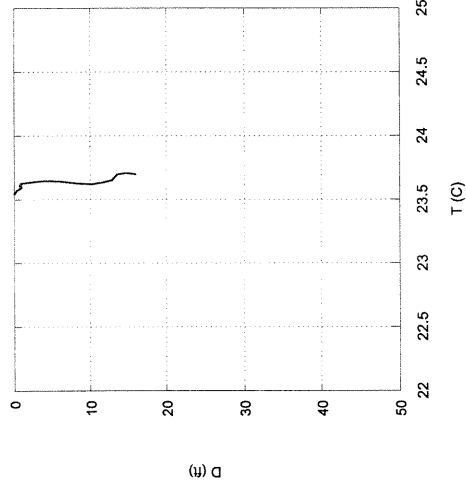


Kahului Commercial Harbor  
2025 Master Plan EA

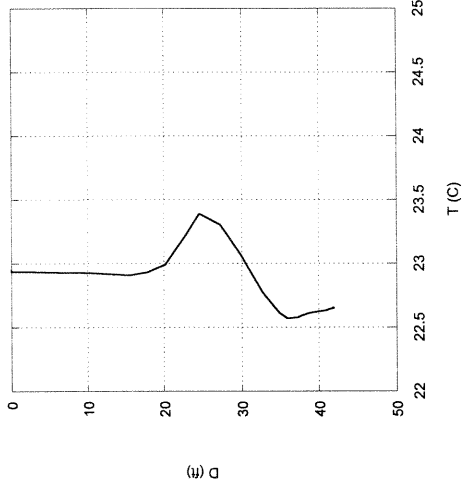


Water Quality Station Locations

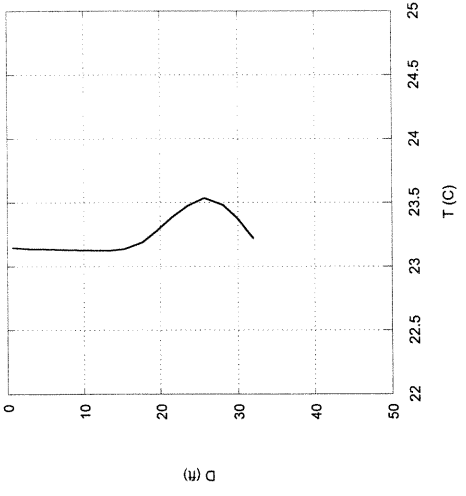
Station NS1 10:44 HST



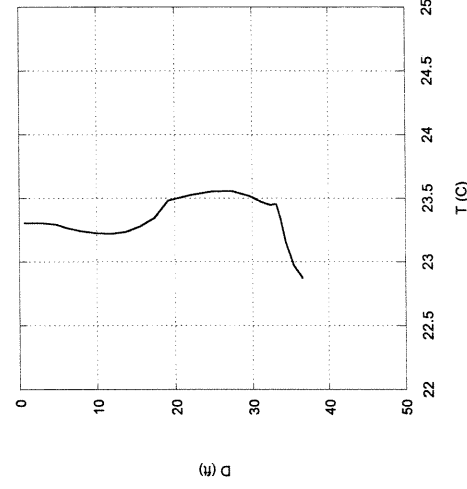
Station NS3 10:51 HST



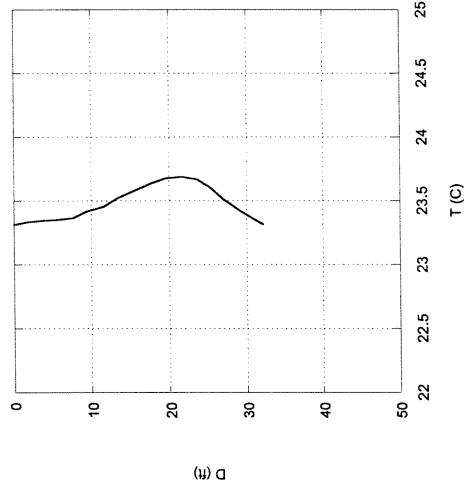
Station H1 11:02 HST



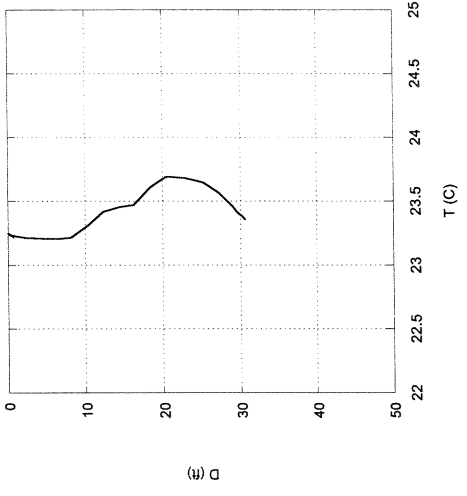
Station H2 11:10 HST



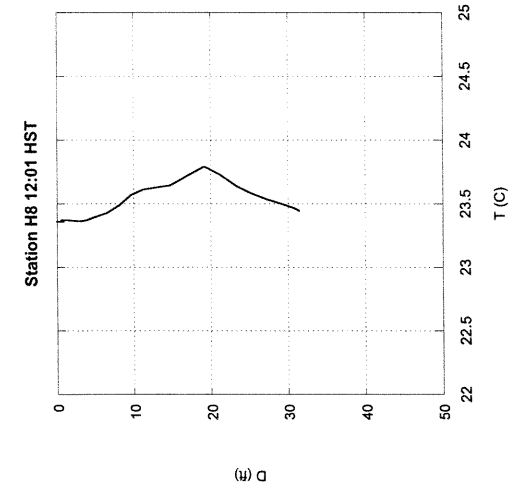
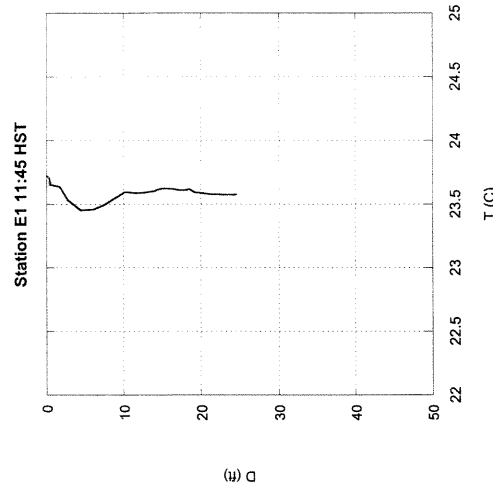
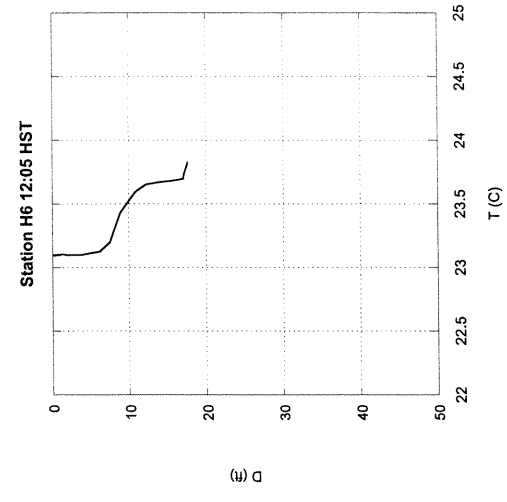
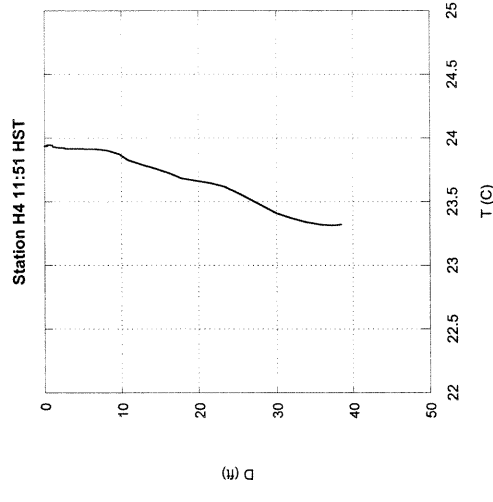
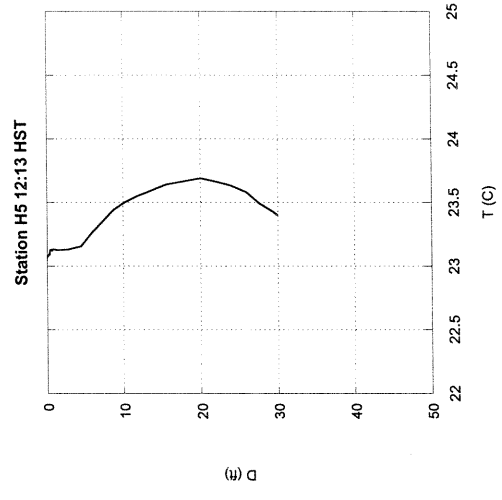
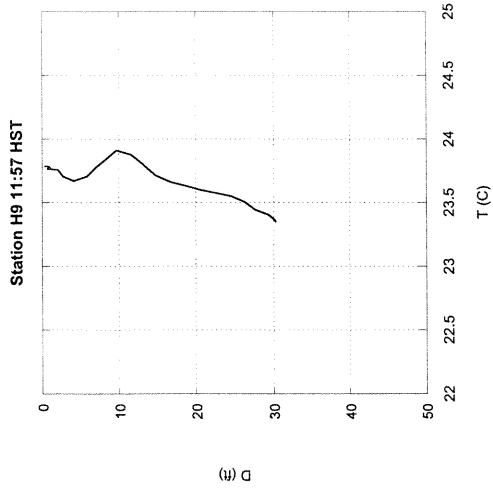
Station H3 11:16 HST



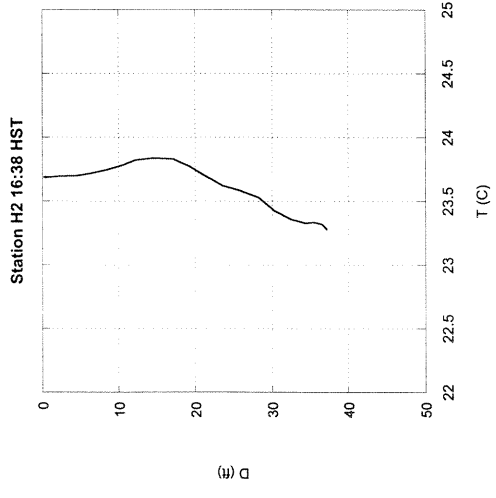
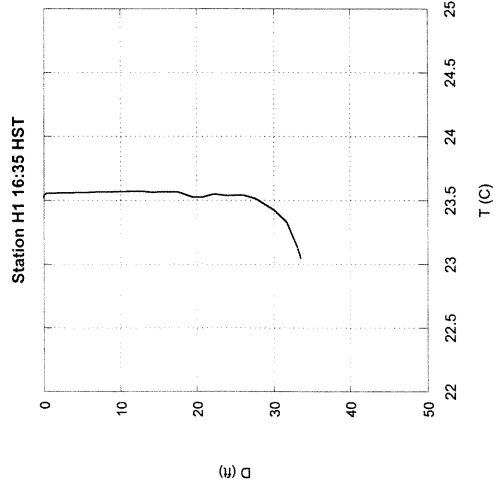
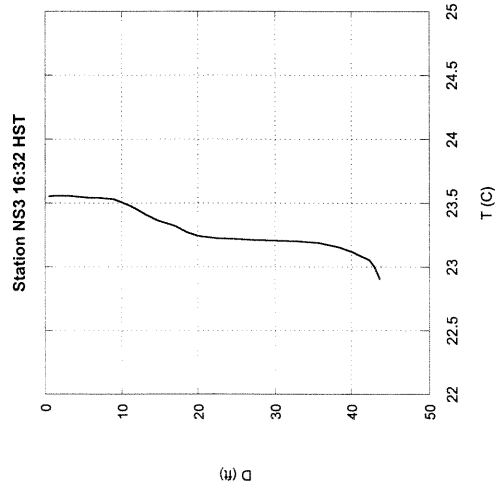
Station H7 11:29 HST



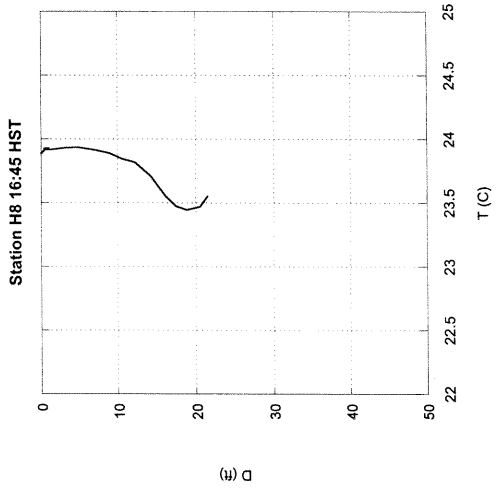
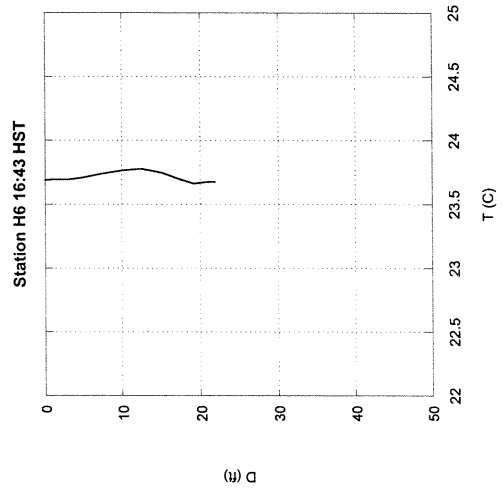
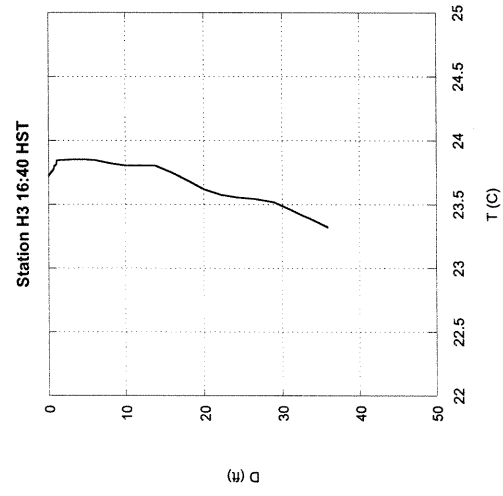
# KAHULUI HARBOR TEMPERATURE PROFILES APRIL 15 2003

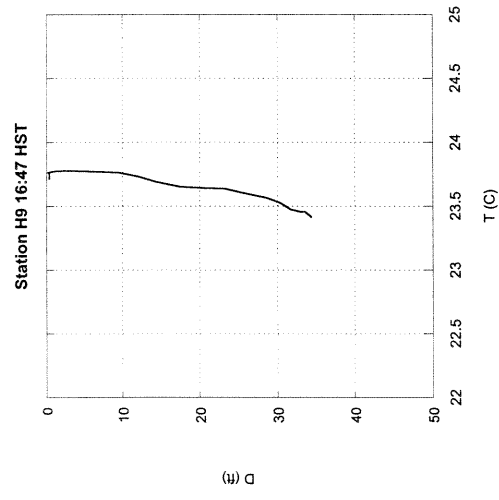
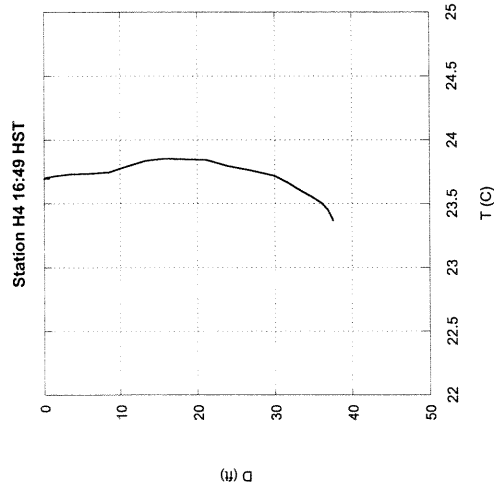
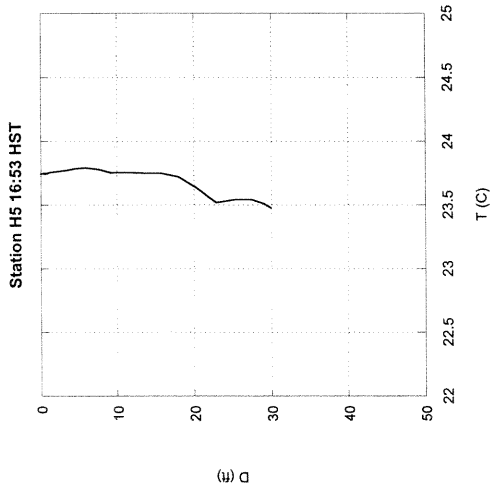


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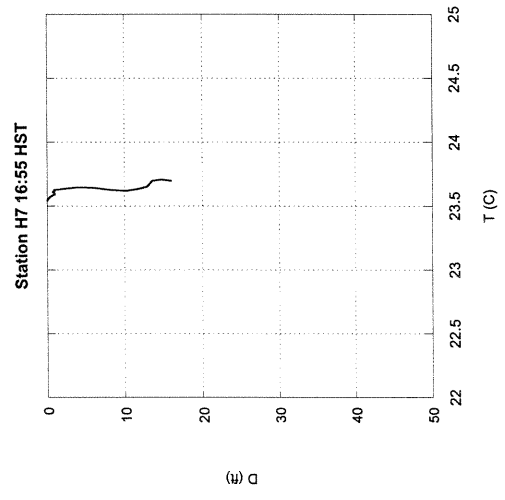


# KAHULUI HARBOR TEMPERATURE PROFILES APRIL 15 2003



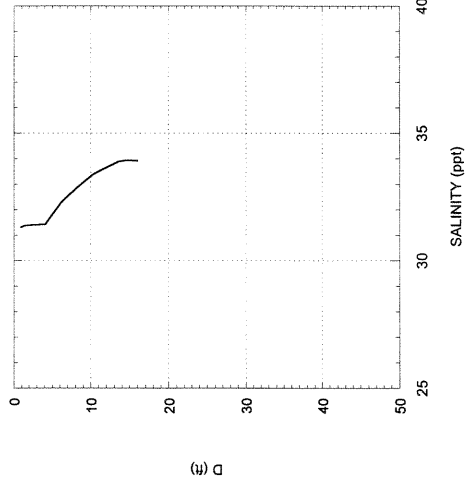


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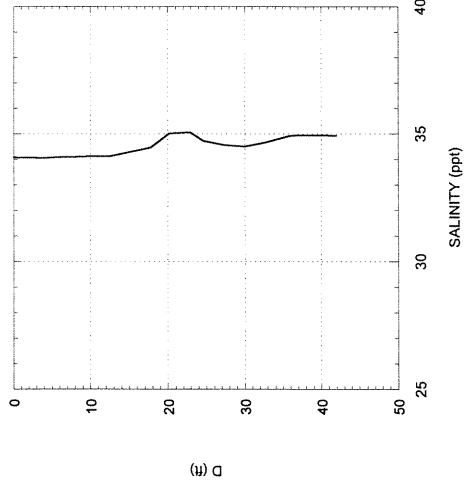




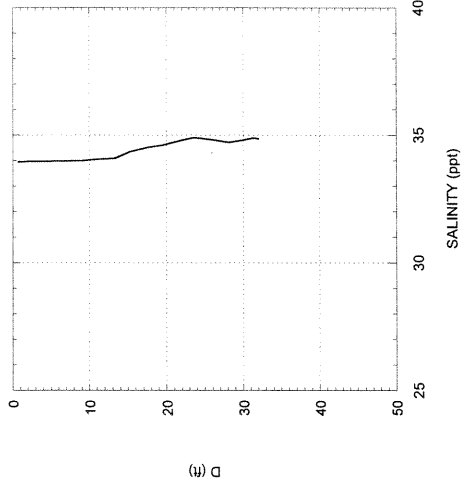
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Station NS3 10:51 HST

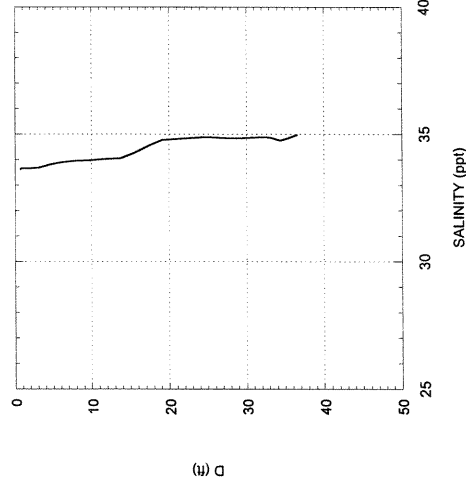


Station H1 11:02 HST

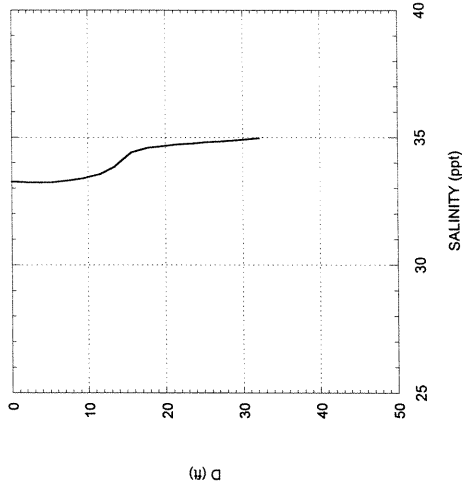


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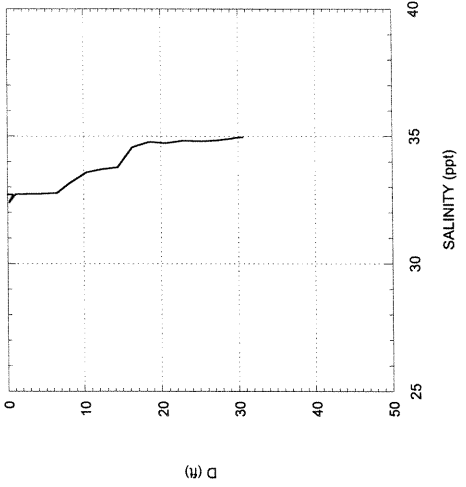
Station H2 11:10 HST

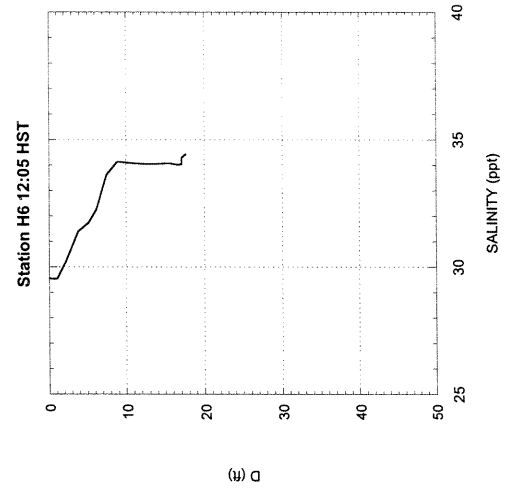
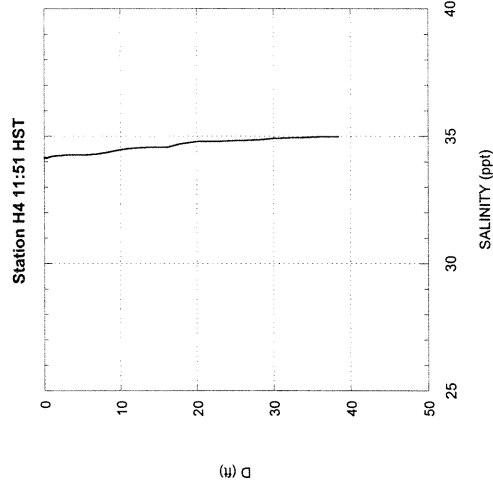
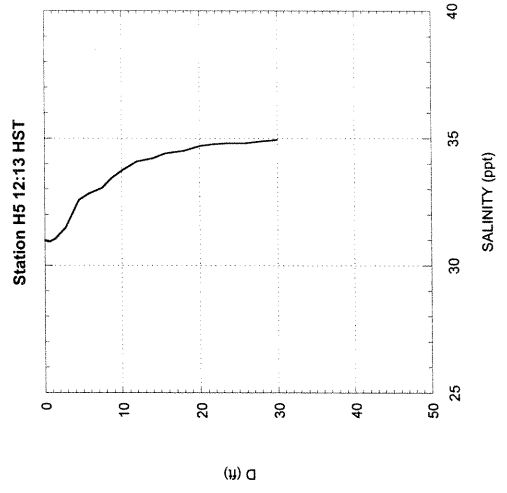
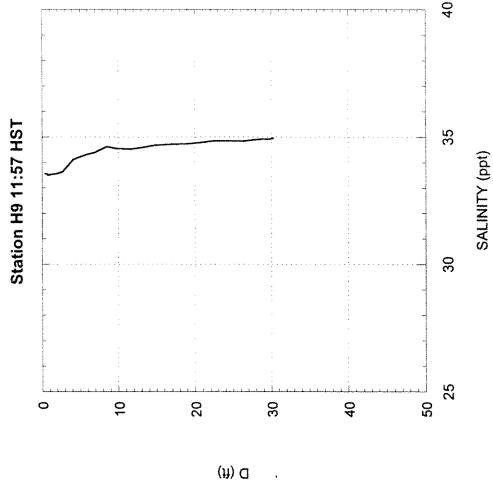


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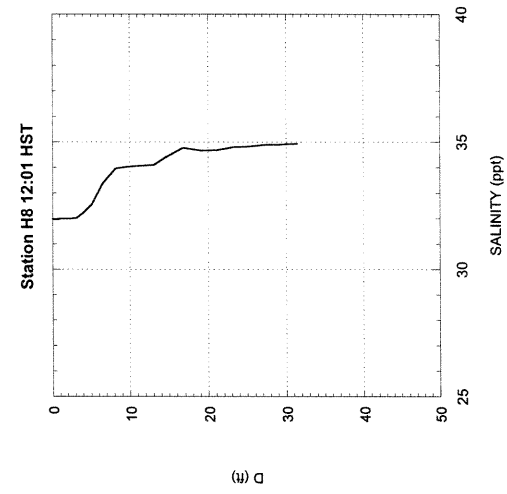
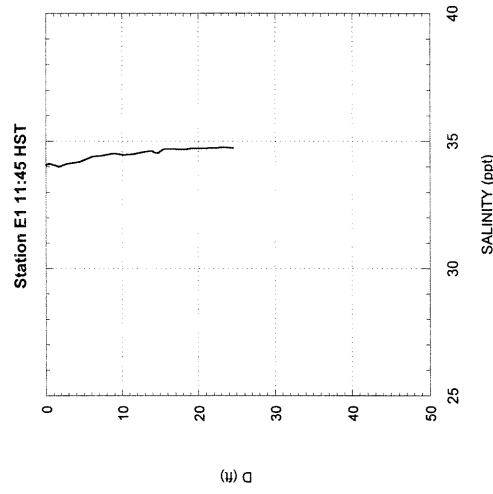


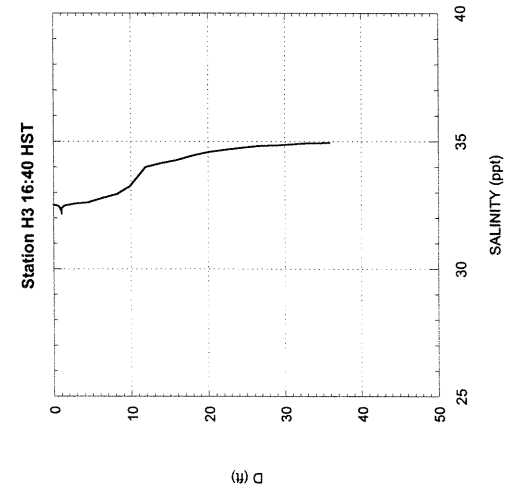
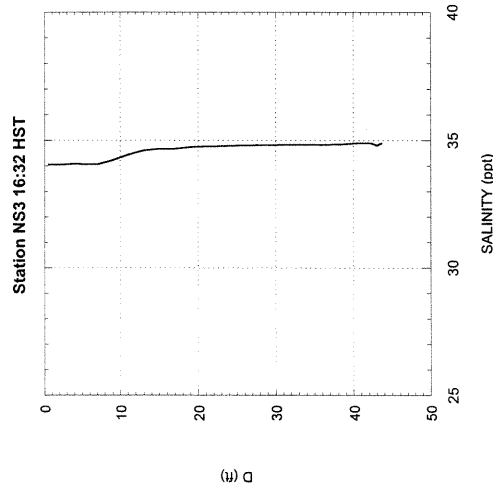
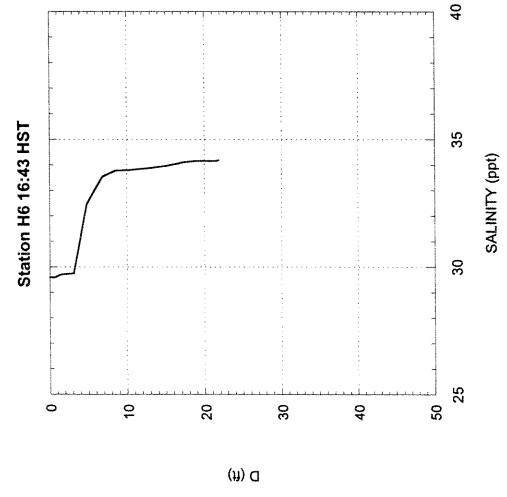
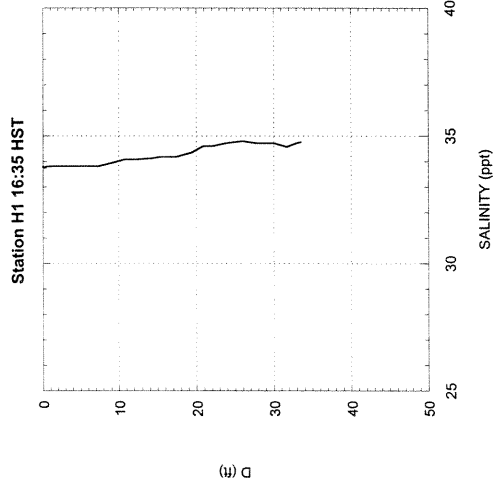
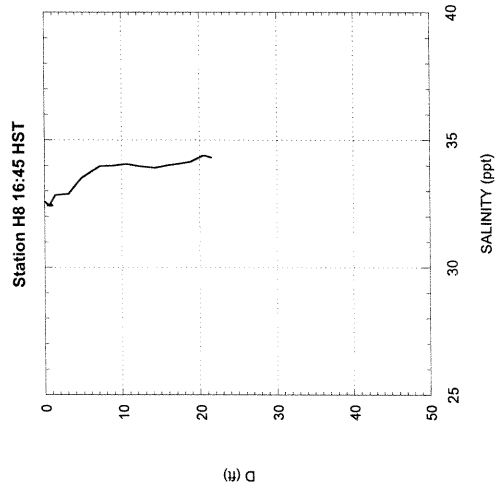
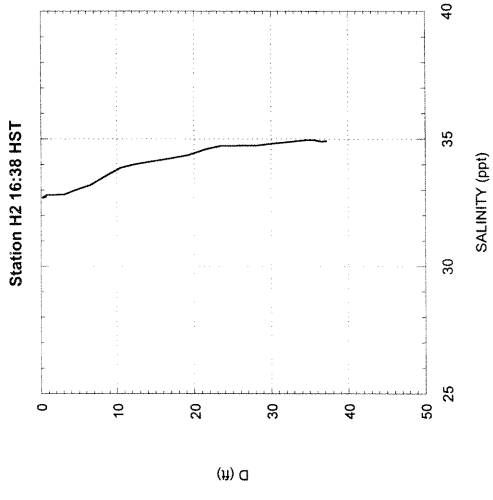
Station H7 11:29 HST



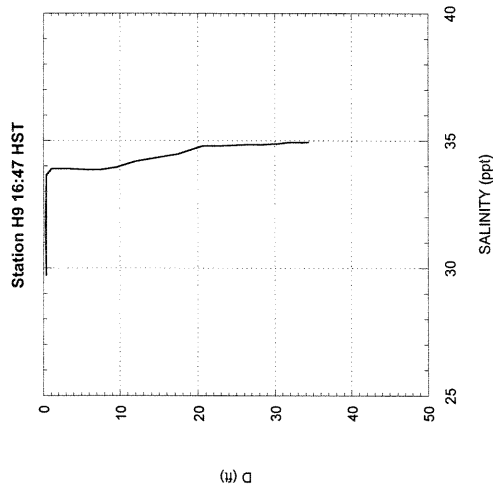
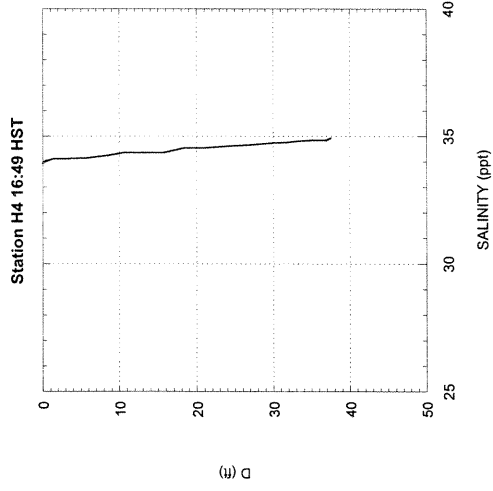
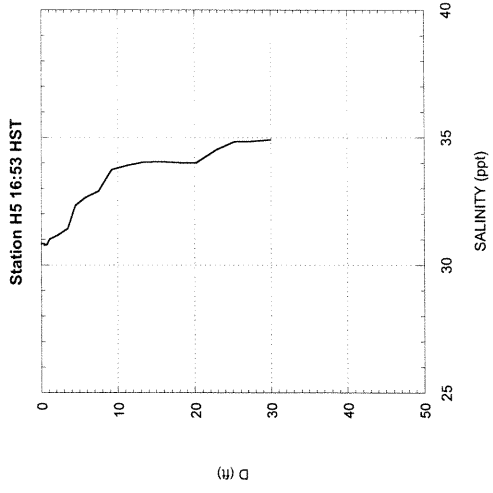


# KAHULUI HARBOR SALINITY PROFILES APRIL 15 2003

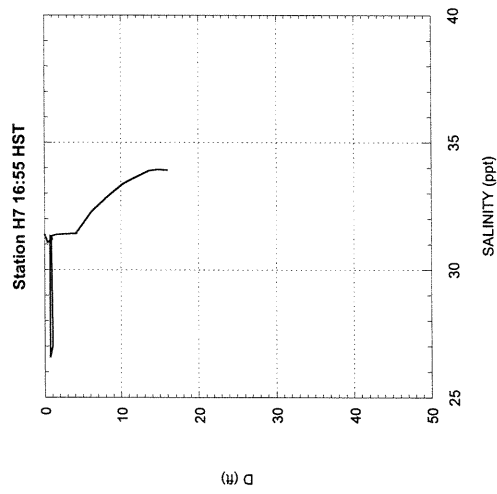


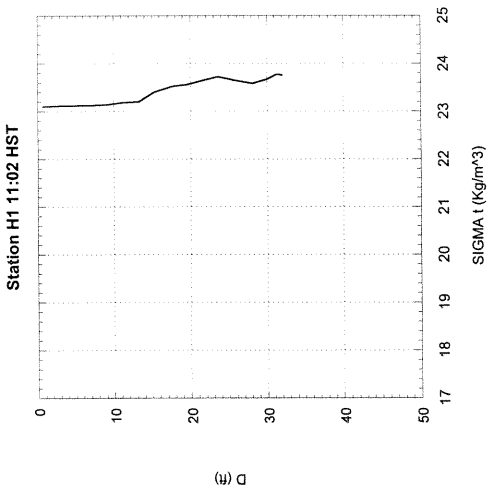
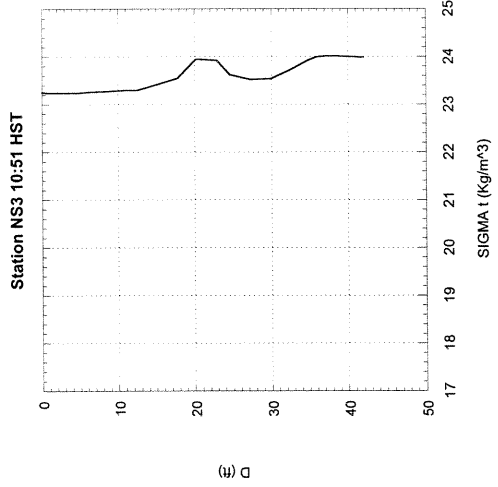
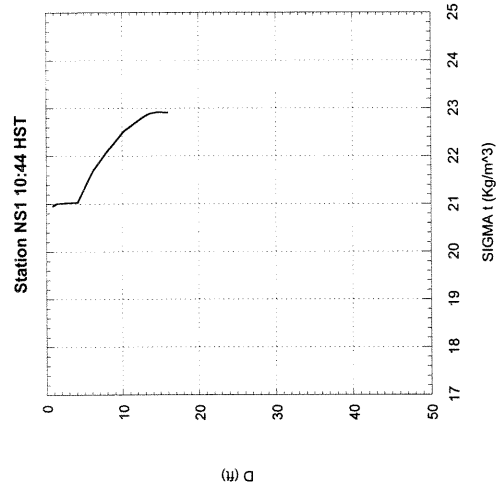


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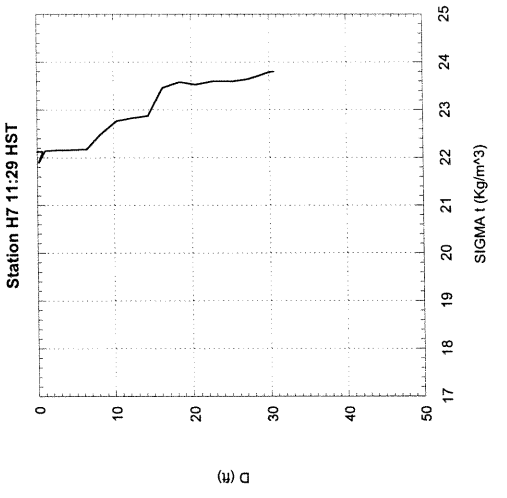
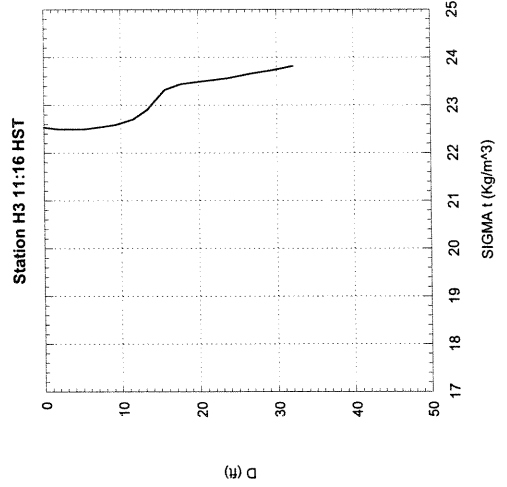
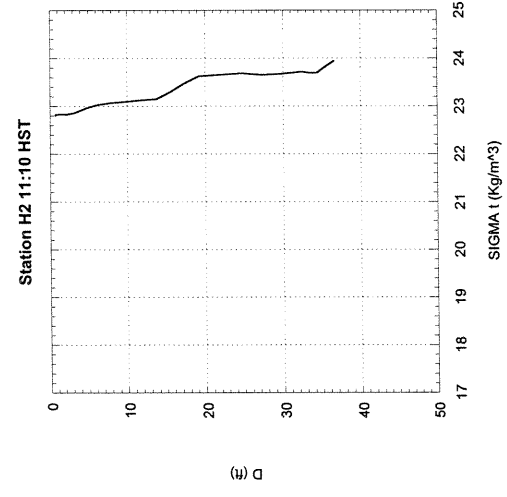


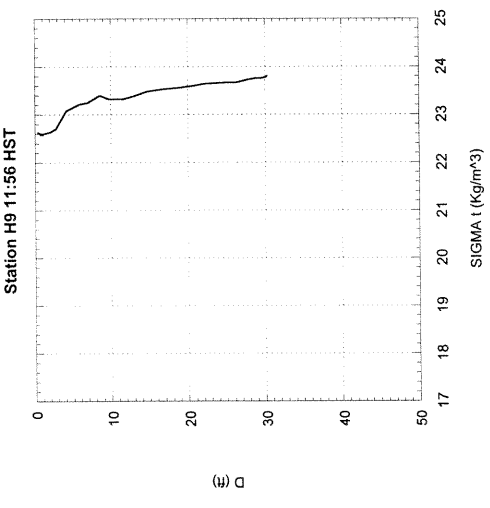
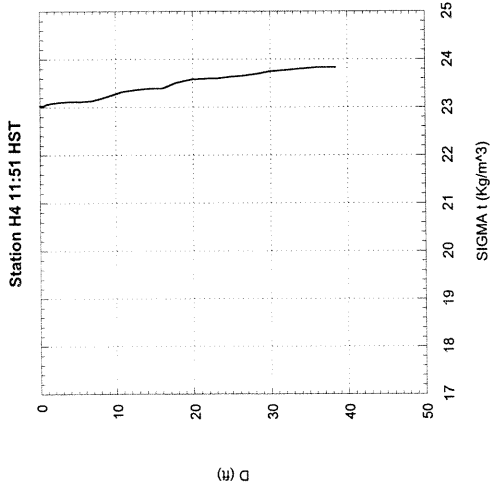
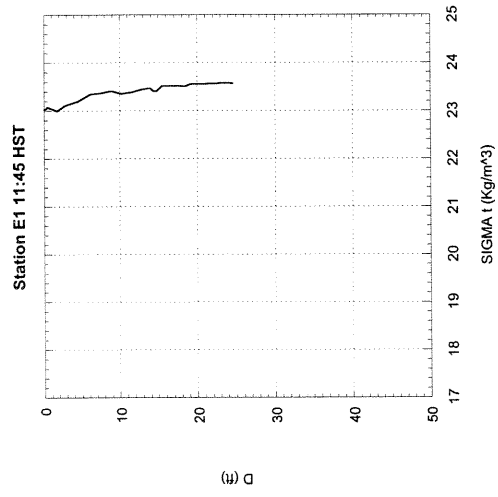
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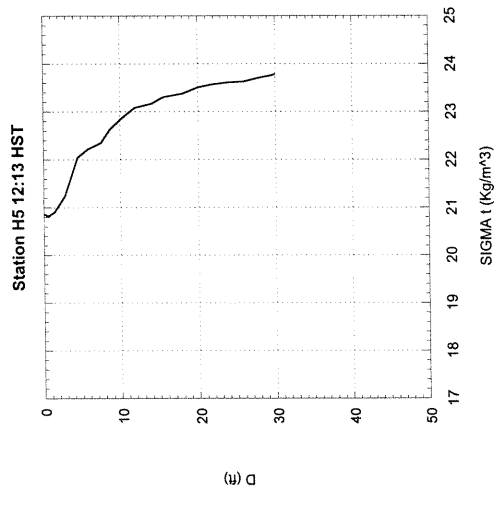
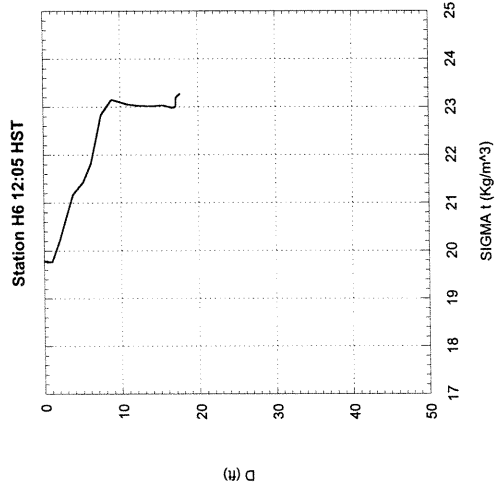
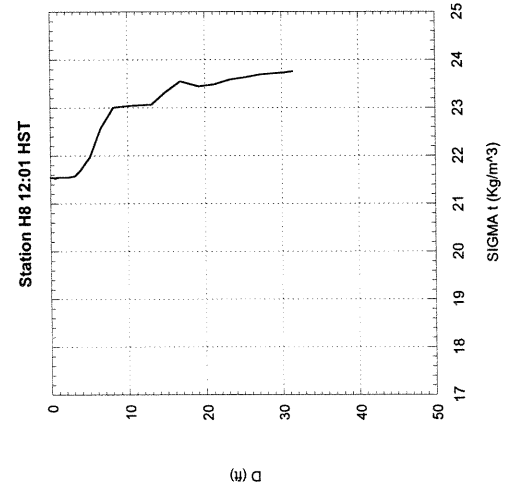


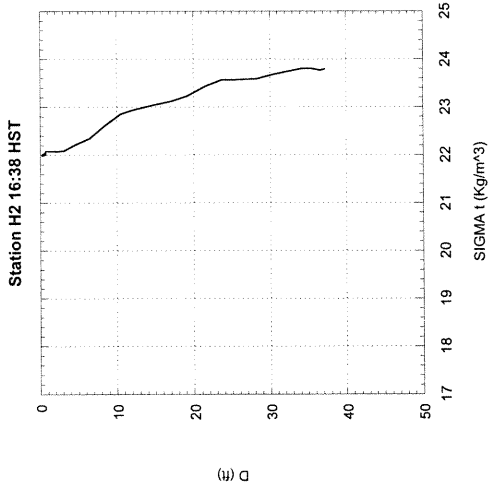
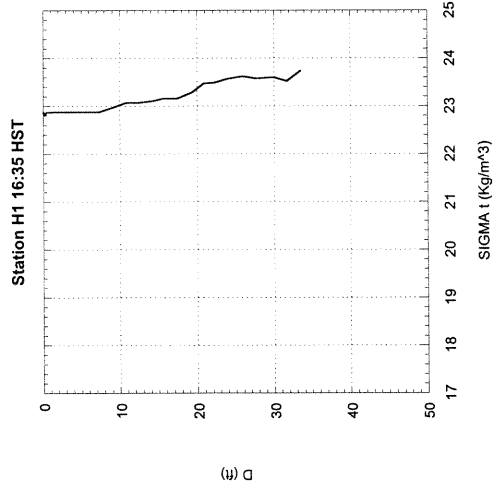
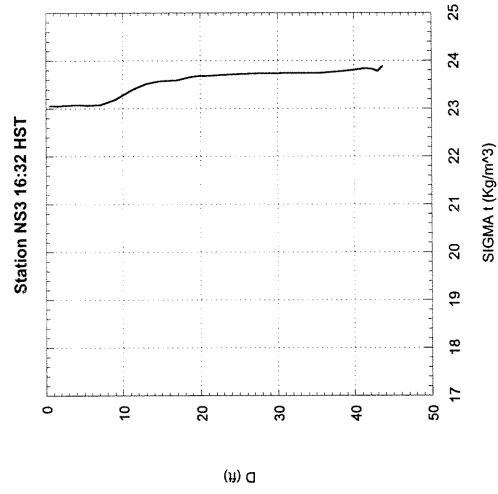
# KAHULUI HARBOR SIGMA T PROFILES APRIL 15 2003



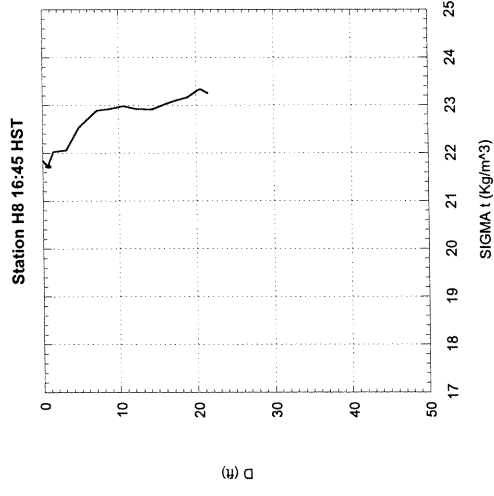
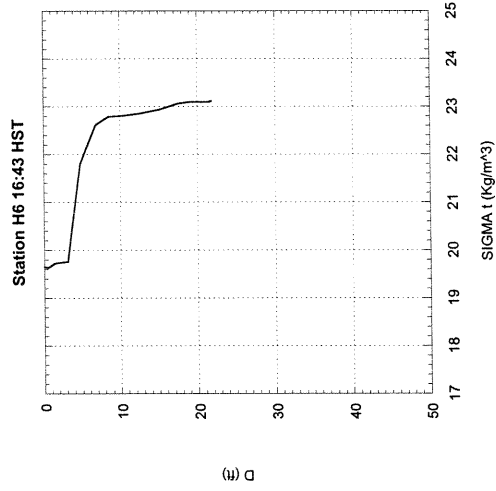
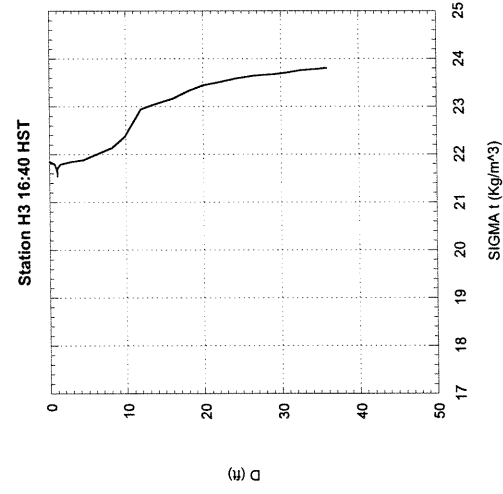


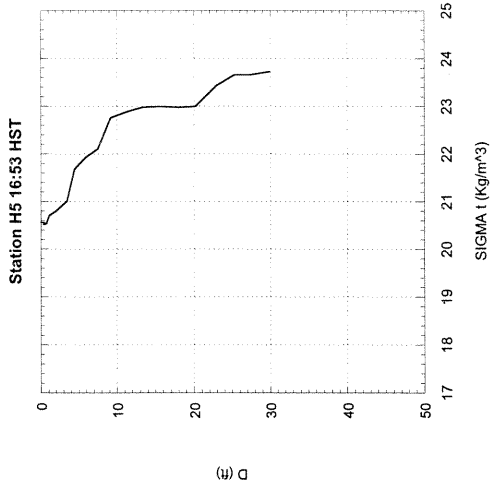
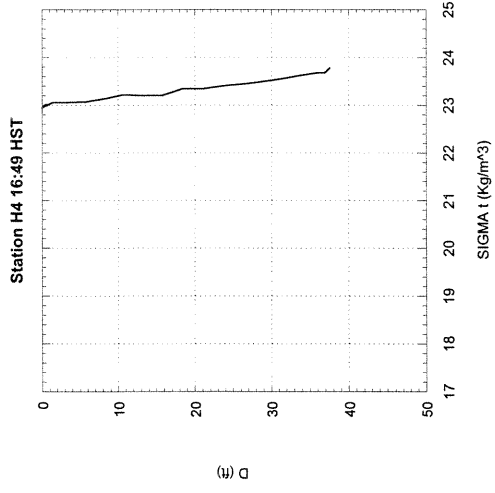
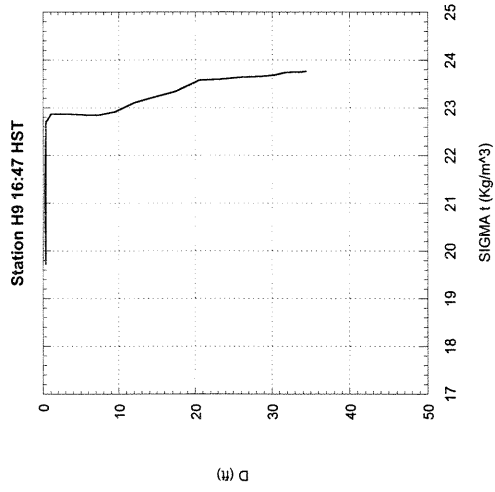
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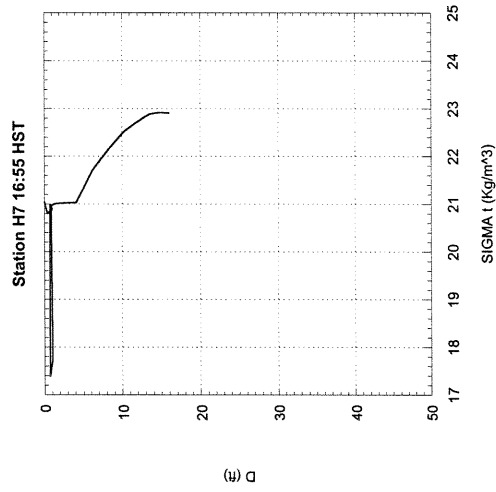


# KAHULUI HARBOR SIGMA T PROFILES APRIL 15 2003





# KAHULUI HARBOR SIGMA T PROFILES APRIL 15 2003





## **APPENDIX E**

### **COMMENTS RECEIVED ON DRAFT ENVIRONMENTAL ASSESSMENT**



LINDA LINGLE  
GOVERNOR OF HAWAII

RECEIVED  
SEP 03 2004



COPY

61

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON  
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU  
DEPUTY DIRECTOR - WATER



EKNA SERVICES, INC.

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

September 1, 2004  
LD-NAV

KAHULUIHARBORDOT.RCM

Mr. Brian Ishii  
Edward K. Noda and Associates, Inc.  
615 Piikoi Street, #300  
Honolulu, Hawaii 96814

Dear Mr. Ishii:

SUBJECT: Draft Environmental Assessment (Job H.C. 3334)  
Project: Kahului Commercial Harbor Improvements  
Applicant: State Department of Transportation  
Location: District of Wailuku, County of Maui, Hawaii

Thank you for the opportunity to review and comment on the subject matter. A copy of the Draft Environmental Assessment covering the subject matter was transmitted to the following Department of Land and Natural Resources' Division for their review and comment:

- Division of Forestry and Wildlife
- Commission on Water Resource Management
- Engineering Division
- Division of Aquatic Resources
- Office of Conservation and Coastal Lands
- Division of State Parks
- Land Division Maui District Land Office
- Land-Planning and Development

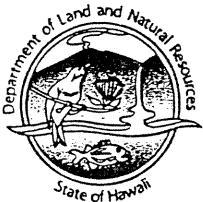
Enclosed please find a copy of the Division of Forestry & Wildlife, Engineering Division and Division of Aquatic Resources comment. Based on the attached responses, the Department of Land and Natural Resources has no other comment to offer on the subject matter. Should you have any questions, please feel free to contact Nicholas A. Vaccaro of the Land Division Support Services Branch at (808) 587-0384.

Very truly yours,

DIERDRE S. MAMIYA  
Administrator

C: MDLO

LINDA LINGLE  
GOVERNOR OF HAWAII



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04 AUG 13 A 8:02



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

August 10, 2004

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

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LAND DIVISION

DAN DAVIDSON  
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU  
DEPUTY DIRECTOR - WATER

2004 AUG 17 A 10:24

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

LD/NAV  
KAHULUIHARBORDOT.CMT

Suspense Date: 8/18/04

MEMORANDUM:

TO: \*XXX Division of Forestry & Wildlife  
XXX Engineering Division  
XXX Division of Aquatic Resources  
\*XXX Division of State Parks  
\*XXX Commission on Water Resource Management  
XXX Office of Conservation and Coastal Lands  
XXX Land-Maui District Land Office (DD)  
\*XXX Land-Planning and Development

FROM: Dierdre S. Mamiya, Administrator  
Land Division

SUBJECT: Draft Environmental Assessment (JOB H.C. 3334)  
Project: Kahului Commercial Harbor Improvements  
Applicant: State Department of Transportation  
Consultant: Edward K. Noda and Associates, Inc  
Location: District of Wailuku, County of Maui

Please review the DEA dated June 2004 pertaining to the subject matter and submit your comments (if any) on Division letterhead signed and dated by the suspense date.

**\*Note: One copy of the DEA is available for your review in the Land Division Office, Room 220.**

Should you need more time to review the subject matter, please contact Nicholas A. Vaccaro at ext.: 7-0384.

If this office does not receive your comments by the suspense date, we will assume there are no comments.

(✓) We have no comments.

( ) Comments attached.

Date: 8/13/04

Signed: David Higazi

Name: DAVID HIGAZI

RECEIVED  
LAND DIVISION

## Division of Forestry & Wildlife

2004 AUG 15 11:53 AM Punchbowl Street, Rm. 325 • Honolulu, HI 96813 • (808) 587-0166 • Fax: (808) 587-0160

August 16, 2004

### MEMORANDUM

TO: Nick Vaccaro, Land Agent  
Land Division

THRU: Dierdre S. Mamiya, Administrator  
Land Division

FROM: Paul J. Conry, Administrator  
Division of Forestry and Wildlife



SUBJECT: **Draft Environmental Assessment (JOB H.C. 3334) Kahului Commercial Harbor Improvements by State Department of Transportation.**

DOFAW has reviewed this subject document and we provide the following comments for your consideration. In short, we recommend that the Department of Transportation strengthen its working plan for alien species detection through Hawaii's harbors and airports on all islands. The plan should be the product of an integrated intra-inter agency program emphasizing the prevention and control of alien species (plant and animal) movement through Hawaii's primary shipping ports and airports. In 1995, the Department of Transportation committed to being involved with a multi-agency partnership called (CGAPS - the Coordinating Group on Alien Pest Species) involving 14 state, federal, and private organizations to protect Hawaii's resources from harmful alien pests. The Department will need to continue its participation in CGAPS. The Statewide Transportation Plan must address the alien species issues and their potential devastating impacts to Hawaii's economy, environment, health and quality of life. A ten-point action plan was developed and information are available through Conservation Hawaii's web-page (<http://www.conservationhawaii.org/silent/action/>).

The improvements to Kahului harbor will expand commerce to the island of Maui, and we are concerned that this will bring new or existing alien pest species to the island. Similarly to Kahului Airport which has begun planning for a cargo inspection facility for alien pest prevention, we recommend that Department of Transportation, Harbors Division institute a similar cargo inspection facility, procedures and protocol for Kahului harbor. Maui's native resources have been compromised with invasive species i.e. coqui frog, miconia etc. The Statewide Transportation Plan should include mitigation of alien species introduction to Maui through Kahului harbor. Thank you for the opportunity to comment on this draft EA.

C: DOFAW, Maui Branch  
Mindy Wilkinson, DOFAW Administration

LINDA LINGLE  
GOVERNOR OF HAWAII



|              |  |
|--------------|--|
| DISPATCH     | Suspense Date:                           |
| COM - DIRECT | Draft Reply <input type="checkbox"/>     |
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STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

August 10, 2004

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

RECEIVED  
LAND DIVISION

DAN DAVIDSON  
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU  
DEPUTY DIRECTOR - WATER

2004 AUG 31 P 3: 30  
AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
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KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

LD/NAV  
KAHULUIHARBORDOT.CMT

Suspense Date: 8/18/04

MEMORANDUM:



- TO:
- \*XXX Division of Forestry & Wildlife
  - XXX Engineering Division
  - XXX Division of Aquatic Resources
  - \*XXX Division of State Parks
  - \*XXX Commission on Water Resource Management
  - XXX Office of Conservation and Coastal Lands
  - XXX Land-Maui District Land Office (DD)
  - \*XXX Land-Planning and Development

FROM: Dierdre S. Mamiya, Administrator *DM*  
Land Division

SUBJECT: Draft Environmental Assessment (JOB H.C. 3334)  
Project: Kahului Commercial Harbor Improvements  
Applicant: State Department of Transportation  
Consultant: Edward K. Noda and Associates, Inc  
Location: District of Wailuku, County of Maui

Please review the DEA dated June 2004 pertaining to the subject matter and submit your comments (if any) on Division letterhead signed and dated by the suspense date.

**\*Note: One copy of the DEA is available for your review in the Land Division Office, Room 220.**

Should you need more time to review the subject matter, please contact Nicholas A. Vaccaro at ext.: 7-0384.

If this office does not receive your comments by the suspense date, we will assume there are no comments.

( ) We have no comments.

(X) Comments attached.

Date: 8/31/04

Signed: Francis Oishi

Name: Francis Oishi

RS ✓  
Fo ✓

Suspense Date: 10/18/04

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
Division of Aquatic Resources  
Honolulu, Hawaii

MEMORANDUM

To: William Devick, Administrator  
Division of Aquatic Resources

From: Jo-Anne N. Kushima, Aquatic Biologist

Subject: Draft Environmental Assessment (JOB H.C. 3334)  
Kahului Commercial Harbor Improvements

Comments Requested By: Dierdre S. Mamiya, Administrator  
Land Division

Date of Request: 08/10/04

Date Received: 08/18/04

Summary of Project

Title: Draft Environmental Assessment  
Kahului Commercial Harbor Improvements  
JOB H.C. 3334

Proj. By: State Department of Transportation )

Location: District of Wailuku, County of Maui

Brief Description:

This Environmental Assessment was prepared by the applicant for the proposed short-term improvements listed below, for the Kahului Commercial Harbor. The applicant is the Department of Transportation, Harbors Division (DOT-HAR) and the accepting authority is the Department of Transportation.

DOT-HAR recently completed the Kahului Harbor 2025 Master Plan. The 2025 Master Plan serves as a guide for development, maintenance and enhancement of the harbor. The recommendations in the 2025 Master Plan are to ensure the efficient, safe, accessible and economical operations of Kahului Commercial Harbor. To begin the process, DOT-HAR proposes to proceed with improvements identified in the 2025 Master Plan that need to be implemented within the next ten (10) years. These projects are located on the harbor's east side and include the:

- 1) Pier 1 extension (Pier 1D);
- 2) Pier 1 comfort stations, waterline and sewer line;
- 3) Pier 3 expansion;
- 4) New Pier 4;
- 5) New Pier 2C, including a passenger terminal, roadway and bridge; and
- 6) Structural pavement, access bridge and utilities at "Puunene Yard."

Additionally, as presented in this Environmental Assessment, it appears that DOT-HAR plans to incorporate the Pier 1C Mooring Dolphin improvement project, which is covered under a separate Environmental Assessment, dated March 2004, with the proposed harbor improvements listed above.

#### Concern Not Previously Identified:

A concern not previously identified by the Division of Aquatic Resources (DAR), during the Pre-Assessment Consultation process is listed under 4.10 BIOTIC COMMUNITIES, 4.10.1.4 ALIEN PEST SPECIES in the DEA. In this section, DOT-HAR acknowledges the problems associated with overseas arrivals of barges and cruise ships serving as vectors for the introduction of alien pest species, HOWEVER the discussion is limited to the terrestrial realm; the harmful effects of introductions of terrestrial organisms; plants, predators and insects which they identify, can damage native flora and fauna; carry diseases that can affect native species; affect agricultural crops and humans; and interrupt shipment of local produce.

The agencies primarily responsible for the prevention of terrestrial alien pest species introductions are identified as the State Department of Agriculture; U.S. Department of Homeland Security (formerly the U.S. Customs and U.S. Department of Agriculture); and the State Department of Health. These agencies monitor, inspect, quarantine and certify cargo from foreign ports and inter-state/intra-state cargo.

With regards to alien aquatic organism introductions, however, the Department of Land and Natural Resources (DLNR), DAR is designated the lead state agency for preventing the introduction and for carrying out the destruction of alien aquatic organisms through the regulation of ballast water discharges and hull fouling organisms through Act 134 Session Laws 2000. DAR is currently in the second funding period for its efforts to develop a ballast water management plan for the State of Hawaii. Working closely with the re-established Alien Aquatic Organism Task Force (AAOTF) to develop a ballast water management plan for Hawaii, DAR and the AAOTF have identified that a greater concern for Hawaii are the introductions of alien aquatic organisms through hull fouling. Previous studies have identified hull fouling as the primary vector for alien aquatic introductions in Hawaii with solid ballast and ballast water following.

#### Comments:

During the Pre-Assessment Consultation Process for the Kahului Harbor 2025 Master Plan, DAR suggested that DOT-HAR discuss in detail, any/all potential short term impacts, and to propose specific measures for averting or minimizing adverse effects as well as to provide possible mitigation measures for unavoidable damage to natural resource values. Additionally, DAR requested DOT-HAR describe potential hazards to the public from any structures during the construction period and to propose



mitigation measures, to protect fishermen, boaters and other recreational users who normally frequent and share the area of the proposed improvements.

DAR also recommends that DOT-HAR contact the Maui Ocean Center (MOC), if they have not already been contacted for comments. Portions of Kahului Harbor serve as the primary collection site for their displays. Additionally, MOC has identified some of the marine resources they collect to be unique to Kahului Harbor.

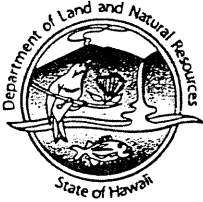
Our concerns regarding the necessary improvements DOT-HAR is proposing to undertake within the next 10 years will be done in already highly modified areas of Kahului Harbor. Because of this, they are not likely to diminish existing aquatic resource values in the immediate areas of the proposed improvements. As a precautionary measure, however, during the improvements we recommend that any/all fabrication and/or treatment of the materials to be used for the improvements, be done on fast land so that any paint, antifoulant or similar bioactive materials used for the improvements will have adequate drying or detoxifying time before being installed near the water.

As always, the applicant should take precautions during the improvement activity to prevent disturbed soil, debris, trash, petroleum products and other contaminants or toxic substances from entering the aquatic environment.

Thank you for providing us the opportunity to review and comment on the above proposed project.



LINDA LINGLE  
GOVERNOR OF HAWAII



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LAND DIVISION



2004 AUG 19 A 10:39

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

August 10, 2004

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON  
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

LD/NAV  
KAHULUIHARBORDOT.CMT

Suspense Date: 8/18/04

MEMORANDUM:

TO: \*XXX Division of Forestry & Wildlife  
XXX Engineering Division  
XXX Division of Aquatic Resources  
\*XXX Division of State Parks  
\*XXX Commission on Water Resource Management  
XXX Office of Conservation and Coastal Lands  
XXX Land-Maui District Land Office (DD)  
\*XXX Land-Planning and Development

FROM: Dierdre S. Mamiya, Administrator *[Signature]*  
Land Division

SUBJECT: Draft Environmental Assessment (JOB H.C. 3334)  
Project: Kahului Commercial Harbor Improvements  
Applicant: State Department of Transportation  
Consultant: Edward K. Noda and Associates, Inc  
Location: District of Wailuku, County of Maui

Please review the DEA dated June 2004 pertaining to the subject matter and submit your comments (if any) on Division letterhead signed and dated by the suspense date.

**\*Note: One copy of the DEA is available for your review in the Land Division Office, Room 220.**

Should you need more time to review the subject matter, please contact Nicholas A. Vaccaro at ext.: 7-0384.

If this office does not receive your comments by the suspense date, we will assume there are no comments.

( ) We have no comments.

(X) Comments attached.

Date: 8/17/04

Signed: *[Signature]*

Name: \_\_\_\_\_

ERIC T. HIRANO, CHIEF ENGINEER

DEPARTMENT OF LAND AND NATURAL RESOURCES  
ENGINEERING DIVISION

LA/NAV

Ref.: KAHULUIHARBORDOT.CMT

COMMENTS

- (X) We confirm that the project site, according to the Flood Insurance Rate Maps (FIRM), is located in Flood Zone V23.
- ( ) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zones \_\_\_\_.
- ( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is \_\_\_\_.
- (X) Please note that project site located in Zone V23 must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

- ( ) Mr. Robert Sumimoto at (808) 523-4254 or Mr. Mario Siu Li at (808) 523-4247 of the City and County of Honolulu, Department of Planning and Permitting.
- ( ) Mr. Kelly Gomes at (808) 961-8327 (Hilo) or Mr. Kiran Emler at (808) 327-3530 (Kona) of the County of Hawaii, Department of Public Works.
- ( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.
- ( ) Mr. Mario Antonio at (808) 241-6620 of the County of Kauai, Department of Public Works.
- ( ) The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.
- (X) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.
- ( ) Additional Comments: \_\_\_\_\_
- ( ) Other: \_\_\_\_\_

Should you have any questions, please call Mr. Andrew Monden of the Planning Branch at 587-0229.

Signed: \_\_\_\_\_

ERIC T. HIRANO, CHIEF ENGINEER

Date: \_\_\_\_\_

8/17/04

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

August 10, 2004

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON  
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
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HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

LD/NAV  
KAHULUIHARBORDOT.CMT

Suspense Date: 8/18/04

MEMORANDUM:

TO: \*XXX Division of Forestry & Wildlife  
XXX Engineering Division  
XXX Division of Aquatic Resources  
\*XXX Division of State Parks  
\*XXX Commission on Water Resource Management  
XXX Office of Conservation and Coastal Lands  
XXX Land-Maui District Land Office (DD)  
\*XXX Land-Planning and Development

FROM: Dierdre S. Mamiya, Administrator *[Signature]*  
Land Division

SUBJECT: Draft Environmental Assessment (JOB H.C. 3334)  
Project: Kahului Commercial Harbor Improvements  
Applicant: State Department of Transportation  
Consultant: Edward K. Noda and Associates, Inc  
Location: District of Wailuku, County of Maui

Please review the DEA dated June 2004 pertaining to the subject matter and submit your comments (if any) on Division letterhead signed and dated by the suspense date.

**\*Note: One copy of the DEA is available for your review in the Land Division Office, Room 220.**

Should you need more time to review the subject matter, please contact Nicholas A. Vaccaro at ext.: 7-0384.

If this office does not receive your comments by the suspense date, we will assume there are no comments.

(✓) We have no comments.

( ) Comments attached.

Date: 8-17-04

Signed: *Jason K. Koga*  
Name: Jason K. Koga

LINDA LINGLE  
GOVERNOR OF HAWAII

RECEIVED  
LAND DIVISION



AUG 13 REC'D

PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON  
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU  
DEPUTY DIRECTOR - WATER



2004 AUG 17 A 10:01

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
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LAND  
STATE PARKS

August 10, 2004

LD/NAV  
KAHULUIHARBORDOT.CMT

Suspense Date: 8/18/04

MEMORANDUM:

TO: \*XXX Division of Forestry & Wildlife  
XXX Engineering Division  
XXX Division of Aquatic Resources  
\*XXX Division of State Parks  
\*XXX Commission on Water Resource Management  
XXX Office of Conservation and Coastal Lands  
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\*XXX Land-Planning and Development

FROM: Dierdre S. Mamiya, Administrator  
Land Division

SUBJECT: Draft Environmental Assessment (JOB H.C. 3334)  
Project: Kahului Commercial Harbor Improvements  
Applicant: State Department of Transportation  
Consultant: Edward K. Noda and Associates, Inc  
Location: District of Wailuku, County of Maui

ADMINISTRATOR  
ASST ADMIN  
DEV BR  
PLAN BR  
RES MGT BR  
CLERICAL  
ADMIN ASST  
INTERP BR

FOR:  
CIRC/POST/STAFF RM  
COMMENT REC  
DRAFT REVIEW  
FILE  
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INFO  
RUN COPIES  
RUSH DEL  
SEE ME  
FAX/SEND COPY TO

Please review the DEA dated June 2004 pertaining to the subject matter and submit your comments (if any) on Division letterhead signed and dated by the suspense date.

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Should you need more time to review the subject matter, please contact Nicholas A. Vaccaro at ext.: 7-0384.

If this office does not receive your comments by the suspense date, we will assume there are no comments.

( ☒ ) We have no comments.

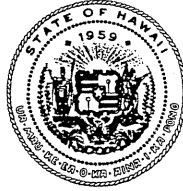
( ☐ ) Comments attached.

Date: 8/16/04

Signed: [Signature]

Name: Daniel S. Quinn

LINDA LINGLE  
GOVERNOR



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP  
7810.06

November 10, 2005

TO: RUSSELL TSUJI, ADMINISTRATOR  
LAND DIVISION  
DEPARTMENT OF LAND AND NATURAL RESOURCES

FROM: RODNEY K. HARAGA  
DIRECTOR OF TRANSPORTATION

SUBJECT: RESPONSE TO COMMENTS, KAHULUI COMMERCIAL HARBOR 2025  
MASTER PLAN ENVIRONMENTAL ASSESSMENT – JOB H. C. 3334

Thank you for your comments on the subject document dated September 1, 2004. We offer the following responses.

DIVISION OF FORESTRY & WILDLIFE:

1. Regarding your comment recommending that the Department of Transportation (DOT) strengthen its working plan for alien species detection through Hawaii's harbors and airports on all islands. The alien species issue is addressed in the *Kahului Commercial Harbor 2025 Master Plan Environmental Assessment* (EA) Section 4.10.1.4. While the DOT has no jurisdictional authority over the interdiction of alien species through its ports, the DOT is committed to assisting the responsible agencies, and is a member of the Coordinating Group on Alien Pest Species as well as other State working groups that are focused on the alien species issue. The DOT is committed to its continuing participation in these groups.
2. Regarding your concern that this will bring new or existing alien pest species to the island. The measures for the control of alien species introduction are discussed in the EA Section 4.10.1.4. As stated in the Draft EA, the Hawaii Department of Agriculture (HDOA), Hawaii Department of Health (HDOH) and other agencies have the responsibility for and jurisdiction over the prevention and mitigation of the introduction of alien species. In addition, the Hawaii Department of Land and Natural Resources (HDLNR), Division of Aquatic Resources (DAR) has jurisdiction over aquatic alien species. The role of DAR will be described in the Final EA.

In addition, the following information will also be added to the Final EA.

Alien species can be introduced purposefully or incidentally, such as by hitchhiking on cargo or as stowaways in the containers. Therefore, many of the alien pest species hitchhike on commodities imported by businesses and residents of Maui County. This is shown in the results from the Kahului Airport Risk Assessment, which indicates that the passengers are typically a low risk pathway for the importation of alien species. The high-risk commodities for the importation of alien pest species include plants and propagative plant parts. Other high-risk commodities include organic produce, leafy greens (such as lettuce, cabbage and kale), cut flowers, strawberries, and peppers. Other high-risk commodities, which enter through the Harbor, include Christmas trees and other plant material.

Once an alien species is established on one island it is highly likely to spread to other islands, especially seeds and flying insects. The inter-island dispersal pathways include, but are not limited to, seeds carried by birds, migration of birds, dispersal by wind and dispersal by ocean currents.

The HDOA has designated Kahului as a limited port-of-entry for overseas agricultural commodities; therefore only plants and plant products such as produce and cut flowers are allowed entry. Live animals (except live seafood for consumption) and microorganisms from foreign and domestic origins are not allowed entry through Kahului unless inspected by HDOA in Honolulu prior to the transport to Kahului.

Therefore, pursuant to the HRS, Section 150A-5 any person transporting any agricultural commodity to Hawaii shall notify the HDOA and hold the commodity on the dock, pier, wharf, airport, air terminal where they are first received or discharged until inspection can be made by the Plant Quarantine Inspector. However, because there has always been a shortage of space at the piers, transportation companies have been requesting more inspections to be done at sites other than the dock or at the dock but before or after regular work time to allow for the containers to be moved from the docks. For the maritime operations, the shippers will reimburse the State for the inspector's cost to inspect the containers during overtime hours.

Although HDOA manpower is limited at other ports, the addition of DOT funded agricultural inspectors at Kahului Airport allows the non-Airport inspectors to work more hours at the Harbor to perform the necessary inspections. In addition,



there are more inspectors to work overtime hours to inspect the incoming maritime commodities, if necessary.

Similarly, propagative agricultural commodities cannot move between islands without HDOA inspection. If this cargo is not inspected by HDOA, Young Brothers will not allow the cargo to be boarded onto the vessel. Non-propagative plant parts, such as cut flowers, fruits, vegetables and produce, need not be inspected provided that they are subject to random inspection by HDOA. Similarly, Hawaii Superferry is currently working on the HDOA requirements for their operations with HDOA and has included the following measures in their Tariff No. 1.

- *“Domestic cats and dogs **ONLY** may travel on Carrier’s [“Superferry”] vessels. No other animals are permitted except livestock and poultry from Hawaii Department of Agriculture (HDOA) licensed agricultural producers. Carrier does not permit the carriage of reptiles, snakes, birds (except HDOA registered poultry transported by registered growers), rodents or exotic species of animals of any kind.*
  - *Only plants, flowers and crops that have either been inspected and passed at the HDOA Plant Quarantine Office or via the Nursery Self Certification Program may be transported on Carrier’s [“Superferry”] vessel. In all cases, a “Passed” sticker must be shown before plants will be allowed on the ferry. No other plants will be permitted on the ferry and must be left for destruction by Carrier’s [“Superferry”] personnel.”*
3. Regarding your recommendation that the Harbors Division develop a cargo inspection facility. The Harbors Division’s budget is bereft of the benefit of State General Funds. The Harbors Division, however, is willing to support aliens species prevention measures within its limited capabilities and resources. Please be advised that Harbors Division has no jurisdictional authority over the interdiction, inspection, and quarantine of incoming passengers, cargo, pests and organisms. These responsibilities are with other state and federal agencies such as HDOA, HDOH, HDLNR and the U.S. Department of Agriculture. The Harbors Division may be able to designate space within Kahului Harbor for a cargo inspection facility. Please be advised, however, that maritime requirements for space with the commercial harbor are a pressing issue.

ENGINEERING DIVISION:

1. Regarding your comment about compliance with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44 CFR), whenever development within a Special Flood Hazard Area is undertaken. The Harbors Division will comply with regulations of the National Flood Insurance Program as applicable.
2. Regarding your comment that the applicant should provide the water demands and calculations to the Engineering Division so it can be included in the *State Water Projects Plan Update*. The water demand, which is projected as 0.04 MGD for the year 2010, will be included in the Final Environmental Assessment. The Harbors Division has submitted this projected demand to the HDLNR.

DIVISION OF AQUATIC RESOURCES:

1. Regarding your comment identifying the DAR as the lead state agency for preventing the introduction and for carrying out the destruction of alien aquatic organisms through the regulation of ballast water discharges and hull fouling organisms. We will include HDLNR-DAR's role in the discussion on alien species.
2. Regarding your recommendation that any/all fabrication and/or treatment of the materials to be used for the improvements be done on fast land so that any paint, antifoulant or similar bioactive materials used for the improvements will have adequate drying or detoxifying time before being installed in/near the water. As stated in the EA, the Harbors Division will use mitigation measures such as Best Management Practices and silt curtains to prevent/minimize pollutants from entering into the water. The Final EA will recommend to the extent practical, that all fabrication will be performed on fast land to minimize impacts to the marine environment.

We appreciate your interest in the environmental review process. If you have any questions, please contact Glenn Soma of my Planning Staff at 587-2503.

LINDA LINGLE  
GOVERNOR OF HAWAII



RS  
C:BI  
GENEVIEVE SALMONSON  
DIRECTOR

STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET  
SUITE 702  
HONOLULU, HAWAII 96813  
TELEPHONE (808) 586-4185  
FACSIMILE (808) 586-4186  
E-mail: oeqc@health.state.hi.us

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SEP 08 2004

September 7, 2004

EKNA SERVICES, INC.

Ms. Iris Ishida  
Department of Transportation – Harbors Division  
State of Hawai'i  
79 South Nimitz Highway  
Honolulu, Hawai'i 96813

Mr. Brian Ishii  
Edward K. Noda and Associates, Inc.  
615 Pi'ikoi Street, Suite 300  
Honolulu, Hawai'i 96814

Dear Ms. Ishida and Mr. Ishii:

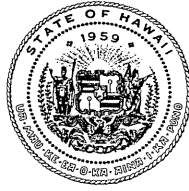
The Office of Environmental Quality Control (OEQC) has reviewed the draft environmental assessment for the Kahului Commercial Harbor Improvements, Tax Map Key 3-7 (various), in the judicial district of Wailuku, and offers the following comment for your consideration.

1. FUNDING: Please discuss the funding mechanism for the project.
2. GLASSPHALT: Please consider using glassphalt for paving the project.
3. SUSTAINABLE BUILDING AND NATIVE LANDSCAPING: Please refer to our Internet website and consider implementing the sustainable building guidelines developed by the Environmental Council as well as landscaping with xerophagic native plants.

Thank you for the opportunity to comment. If there are any questions, please call Mr. Leslie Segundo, Environmental Health Specialist, at (808) 586-4185.

Sincerely,

*Genevieve Salmonson*  
GENEVIEVE SALMONSON  
Director



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:

HAR-EP 7811.05

November 14, 2005

TO: GENEVIEVE K.Y. SALMONSON, DIRECTOR  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL  
DEPARTMENT OF HEALTH

FROM: RODNEY K. HARAGA  
DIRECTOR OF TRANSPORTATION

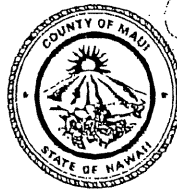
SUBJECT: RESPONSE TO COMMENTS, KAHULUI COMMERCIAL HARBOR 2025  
MASTER PLAN ENVIRONMENTAL ASSESSMENT – H.C. 3334

Thank you for your comments on the subject document dated September 7, 2004. We offer the following response.

1. Regarding your comment about including the funding mechanism for master plan recommended improvements. The funding of the projects will be from state funds, either using Harbors Special Funds or the General fund. This will be included in *the Kahului Commercial Harbor 2025 Master Plan Final Environmental Assessment* (Final EA).
2. Regarding your recommendation about using Glassphalt for paving projects. The Harbors Division will use Glassphalt, if available, as stated in Environmental Assessment Sections 1.3 and 3.4.
3. Regarding your suggestion about using sustainable building guidelines developed by the Environmental Council, as well as landscaping with xerophagic native plants. The use of sustainable building guidelines, including the use of xerophagic native plants, will be included in the Final EA Section 1.3.

We appreciate your interest in the environmental review process. If you have any questions, please call Mr. Glenn Soma of my Harbors planning staff at 587-2503.

ALAN M. ARAKAWA  
Mayor



COPY

GLENN T. CORREA  
Director

JOHN L. BUCK III  
Deputy Director

(808) 270-7230  
Fax (808) 270-7934

C:BI

**DEPARTMENT OF PARKS & RECREATION**

700 Hali'a Nakoa Street, Unit 2, Wailuku, Hawaii 96793

RECEIVED

AUG 25 2004

August 13, 2004

EKNA SERVICES, INC.

Mr. Brian Ishii  
Edward K. Noda and Associates, Inc.  
615 Piikoi Street, Suite 300  
Honolulu, Hawaii 96814

Dear Mr. Ishii:

**SUBJECT: KAHULUI COMMERCIAL HARBOR IMPROVEMENTS**

Thank you for the opportunity to review the Draft Environmental Assessment for the subject project. We have no comments to submit at this time.

Please contact me or Mr. Patrick Matsui, Chief of Parks Planning and Development, at (808)270-7387 if there are any questions.

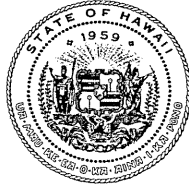
Sincerely,

A handwritten signature in black ink, appearing to read "Glenn T. Correa".

GLENN T. CORREA  
Director

c: Patrick Matsui, Chief of Planning and Development  
Office of Environmental Quality Control

LINDA LINGLE  
GOVERNOR



**STATE OF HAWAII**  
**DEPARTMENT OF TRANSPORTATION**  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7812.05

November 14, 2005

Mr. Glenn T. Correa  
Director  
Department of Parks & Recreation  
700 Hali'a Nakoa Street, Unit 2  
Wailuku, Hawaii 96793

Dear Mr. Correa:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for reviewing the subject document and your letter of no comment dated August 13, 2004.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my Harbor's planning staff at 587-2503.

Very truly yours,

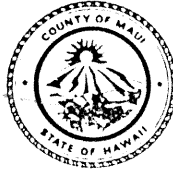
A handwritten signature in black ink, appearing to read "Rodney K. Haraga", is written over the typed name and title.

RODNEY K. HARAGA  
Director of Transportation

ALAN M. ARAKAWA  
Mayor

MICHAEL W. FOLEY  
Director

WAYNE A. BOTEILHO  
Deputy Director



RECEIVED  
SEP 09 2004

COUNTY OF MAUI  
**DEPARTMENT OF PLANNING** EKNA SERVICES, INC.

September 7, 2004

Mr. Brian Ishii  
Edward K. Noda and Associates, Inc.  
615 Piikoi Street, Suite 300  
Honolulu, Hawaii 96814

Dear Mr. Ishii:

RE: Draft Environmental Assessment Prepared for the Kahului  
Commercial Harbor Improvements located at TMK: 3-7-001: 021 &  
022; 3-7-010: 2, 3, 6, 13, 15, 21, 22, 24, 27, 27, 28, 39, 32 & 34; and  
3-7-008: 2, 3, 4, and 6 (LTR 2004/2937)

The Maui Planning Department (Department) is in receipt of your request for comments on the Draft Environmental Assessment (DEA) prepared for the above referenced project and provides the following comments:

1. The DEA should include any plans/drawings for the proposed facilities, if available.
2. The proposed improvements will increase the capacity and use of the harbor facilities for both domestic and foreign services. As such, a Traffic Impact Analysis should be prepared to assess these uses and any impacts to the surface transportation system.
3. A water quality sampling program should be implemented during construction related activities to ensure no net increase in pollutant loads.
4. The Department recommends transmitting the DEA to the County of Maui, Department of Transportation, Fire Department, and Police Department for consultation. In addition, since the proposed improvements will impact the canoe clubs, the Department recommends transmitting a copy of the DEA for their review and comment.

Mr. Brian Ishii  
September 7, 2004  
Page 2

5. The Department requests additional information regarding the proposed alignments of the sewer and water lines in order to determine whether the improvements should require review in accordance with the Special Management Area (SMA) Rules of the Maui Planning Commission and Chapter 205A, HRS.
6. Copies of the letters prepared in response to pre-consultation comments should have been included in the DEA.

Thank you for the opportunity to comment. Should you require additional clarification, please contact Ms. Kivette A. Caigoy, Environmental Planner, at 270-7735.

Sincerely,



*for* MICHAEL W. FOLEY  
Planning Director

MWF:KAC:lar

c: Wayne A. Boteilho, Deputy Planning Director  
Clayton I. Yoshida, AICP, Planning Program Administrator  
Kivette A. Caigoy, Environmental Planner  
State DOT  
TMK File  
OEQC  
General File  
K:\WP\_DOCS\PLANNING\EA\DEAComments\2004\2937\_KahuluiHarborImprvmts.wpd





**STATE OF HAWAII**  
**DEPARTMENT OF TRANSPORTATION**  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7813.05

November 14, 2005

Mr. Michael W. Foley  
Director  
Department of Planning  
County of Maui  
250 South High Street  
Wailuku, Hawaii 96793

Dear Mr. Foley:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments on the subject document dated September 7, 2004. We offer the following responses.

1. Regarding your comment that the DEA should include any plans/drawings for the proposed facilities, if available. The available drawings were presented in the *Kahului Commercial Harbor 2025 Master Plan Environmental Assessment (EA)*.
2. Regarding your comment that the proposed improvements will increase the capacity and use of the harbor facilities for both domestic and foreign services and as such, a Traffic Impact Analysis should be prepared to assess these uses and any impacts to the surface transportation system. The proposed improvements are not expected to impact the maritime demand at Kahului Commercial Harbor and therefore, a formal Traffic Impact Analysis is not required. In addition, there is no requirement in HRS 343 for a formal Traffic Impact Analysis.
3. Regarding your comment that a water quality sampling program should be implemented during construction related activities to ensure no net increase in pollutant loads. A water quality sampling program will be implemented if required by the State Department of Health or the U.S. Army Corps of Engineers. As stated in the Draft EA the construction will incorporate mitigative measures such as BMPs to minimize pollutant loads into the Harbor.
4. Regarding your comment recommending the transmittal of the Draft EA to the County of Maui, Department of Transportation, Fire Department, and Police Department, as well as to the canoe clubs for comment. The Draft EA was transmitted to the required County of Maui agencies and to representatives of the canoe clubs. In addition, the Draft EA is available at the Kahului Public Library.

Mr. Michael W. Foley  
Page 2  
November 14, 2005

HAR-EP 7813.05

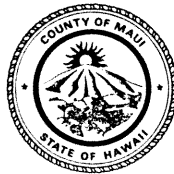
5. Regarding the Department's request for additional information regarding the proposed alignments of the sewer and water lines in order to determine whether the improvements should require review in accordance with the Special Management Area (SMA) Rules of the Maui Planning Commission and Chapter 205A, HRS. The provisions of Hawaii Revised Statutes Chapter 266-2 state that the Harbors Division is exempt from all county approvals.
6. Regarding the request that copies of the letters prepared in response to pre-consultation comments should have been included in the Draft EA. No substantive response letters were generated for the pre-consultation comments.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my Harbors planning staff at (808) 587-2503.

Very truly yours,

  
RODNEY K. HARAGA  
Director of Transportation

ALAN M. ARAKAWA  
Mayor



GEORGE Y. TENGAN  
Director

JEFFREY T. PEARSON, P.E.  
Deputy Director

C:BI  
Mataa

**DEPARTMENT OF WATER SUPPLY  
COUNTY OF MAUI**

200 South High Street  
WAILUKU, MAUI, HAWAII 96793-2155  
Telephone (808) 270-7816 • Fax (808) 270-7833  
www.mauiwater.org

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SEP 13 2004

September 9, 2004

Mr. Brian T. Ishii  
Edward K. Noda and Associates, Inc.  
615 Piikoi Street, Suite 300  
Honolulu, Hawaii 96814

EKNA SERVICES, INC.

Subject: Draft Environmental Assessment for Kahului Commercial Harbor Improvements,  
TMK: 3-7-01:021 & 022; 3-7-10:002, 003, 006, 013, 015, 021, 022, 024, 026, 027, 028, 030, 032  
& 034; and 3-7-08:002, 003, 004 & 006

Dear Mr. Ishii:

Thank you for the opportunity to provide comments on this Draft Environmental Assessment (EA). Please find attached the Department comments to the Pier 1C Mooring Dolphin Draft EA of February 25, 2004. We have the following additional comments:

**Source Availability and Consumption**

The project area is served by the Central Maui System. The main sources of water for this system are the Iao and Waihee aquifers, the Iao tunnel and the Iao-Waikapu Ditch. As of July 21, 2003, the Commission on Water Resource Management (CWRM) has designated Iao aquifer as Groundwater Management Area. The sustainable yield of this aquifer is 20 MGD. DWS will not issue reservations for future meters until new sources are brought on-line. DWS is developing new sources outside of Iao aquifer, including the Waihee aquifer and surface water sources. Water for this project may not be available until new sources are on-line.

The EA should include estimated water demand for the proposed improvements, including increased use due to the forecast increase in passengers and vessels utilizing the harbor.

**System Infrastructure**

Please find attached a section of the Department fire protection map serving the harbor area. Water system improvement requirements will be determined in the building permit process. The applicant should contact our engineering division at (808) 270-7835 to discuss system improvements.

**Pollution Prevention**

The project overlies the Kahului aquifer. The Department of Water Supply strives to protect the integrity of surface and groundwater resources by encouraging the applicant to adopt best management practices (BMPs) designed to minimize infiltration and runoff from all construction and vehicle operations. We have attached sample BMPs for principle operations for reference. Additional information can be obtained from the State Department of Health.

We recommend that the following water conservation measures be included in the EA and implemented in project design and construction:

Eliminate Single-Pass Cooling: Single-pass, water-cooled system should be eliminated per Maui County Code

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10/1/04  
10/1/04

ALAN M. ARAKAWA  
Mayor

GEORGE Y. TENGAN  
Director

JEFFREY T. PEARSON, P.E.  
Deputy Director

Subsection 14.21.20. Although prohibited by code, single-pass water cooling is still manufactured into some models of air-conditioners, freezers, and commercial refrigerators.

Utilize Low-Flow Fixtures and Devices: Maui County Code Subsection 16.20A.680 requires the use of low-flow water fixtures and devices in faucets, showerheads, urinals, water closets and hose bibs. Water conserving washing machines, ice-makers and other units are also available.


Maintain Fixtures to Prevent Leaks: A simple, regular program of repair and maintenance can prevent the loss of hundreds or even thousands of gallons a day. Refer to the attached handout, "The Costly Drip". The applicant should establish a regular maintenance program.

Use Climate-adapted Plants: The project is located in the "Maui County Planting Plan" - Plant Zone 5. Native plants adapted to the area conserve water and protect the watershed from degradation due to invasive alien species. Please refer to the attached brochure: "Saving Water In The Yard - What and How to Plant In Your Area".

Prevent Over-Watering By Automated Systems: Provide rain-sensors on all automated irrigation controllers in common areas. Check and reset controllers at least once a month to reflect the monthly changes in evapo-transpiration rates at the site. As an alternative, provide the more automated, soil-moisture sensors on controllers.

Should you have any questions, please contact our Water Resources and Planning Division at 270-7199.

Sincerely,



George Y. Tengan  
Director  
emb

c: engineering division

Office of Environmental Quality Control

attachments (with original only):

DWS letter of 2/25/04

Section of fire protection map (not to scale)

Maui County Planting Plan-Plant Zone 5-Saving Water in the Yard-What and How to Plant in your Area

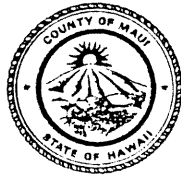
Ordinance No. 2108 - A Bill for an Ordinance Amending Chapter 16.20 of the Maui County Code, Pertaining to the Plumbing Code

A Checklist of Water Conservation Ideas For Commercial Buildings

Selected BMP's from "Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters"-EPA

C:\WPdocs\EAs EISs\Kahului Commercial Harbor Improve DEA.wpd

*By Water All Things Find Life*



**DEPARTMENT OF WATER SUPPLY**  
**COUNTY OF MAUI**  
200 South High Street  
WAILUKU, MAUI, HAWAII 96793-2155  
Telephone (808) 270-7816 • Fax (808) 270-7833

February 25, 2004

Ms. Gail W. Atwater, AICP  
R.M. Towill Corporation  
420 Waikamilo Road, Suite 411  
Honolulu, HI 96817-4941  
19829-OP

Subject: Request for Review  
Draft Environmental Assessment  
Kahului Commercial Harbor Pier 1C Mooring Dolphin  
Kahului, District of Wailuku, Maui  
TMK: 3-7-01"022

Dear Ms. Atwater:

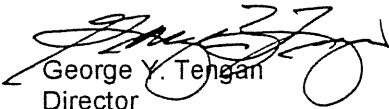
Thank you for the opportunity to comment on this Draft Environmental Assessment (DEA). We provide the following information:

The Kahului Harbor is serviced by the Central Maui System. Any effect on potable water usage would be incidental to increased use of harbor facilities.

The Department of Water Supply strives to protect the integrity of watersheds and water resources. As stated in the DEA, additional berthing sites for overseas ships provided by the proposed Pier 1C mooring dolphin would increase the potential of further alien species introduction to Maui. Alien species can out-compete native species, leaving large areas unprotected against erosion and other watershed damage. While the DEA describes current measures to prevent alien pest species introduction to the State, it should also specify what specific mitigation measures will be taken to address the increased threat from the added berthing sites.

Should you have any questions, please contact our Water Resources and Planning Division at (808) 270-7199.

Sincerely,

  
George Y. Tengan  
Director  
emb

c: engineering division

*By Water All Things Find Life*

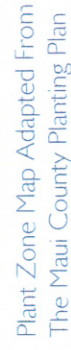








# What and How to Plant in Your Area



Tips From The Maui County Department of Water Supply  
*By Water All Things Find Life*

- 1 Wet Windward Areas
- 2 Cool Dry Upper Elevations
- 3 Warm to Hot Low Elevations
- 4 Wetter Low Areas Near Mountains
- 5 Windward Coastal Salt Spray Zones



# Zone-specific Native and Polynesian plants for Maui County

## Zone 1

TYPE: F Fern G Grass Gr Ground Cover Sh Shrub P Palm S Sedge Tr Tree V Vine

| Type    | Scientific Name                           | Common Name                | Height     | Spread    | Elevation        | Water req.    |
|---------|---|----------------------------|------------|-----------|------------------|---------------|
| F       | Psilotum nudum                            | moa, moa kula              | 1'         | 1'        | sea to 3,000'    | Dry to Wet    |
| F       | Sadleria cyatheoides                      | 'ama'u, ama'uma'u          |            |           |                  |               |
| Gr - Sh | Lipochaeta succulenta                     | nehe                       | 2'         | 5'        | sea to 1,000'    | Dry to Wet    |
| P       | Cocos nucifera                            | coconut, niu               | 100'       | 30'       | sea to 1,000'    | Dry to Wet    |
| P       | Pritchardia arecina                       | lo'ulu, hawane             | 40'        | 10'       | 1,000' to 3,000' | Dry to Wet    |
| P       | Pritchardia forbesiana                    | lo'ulu                     | 15'        |           |                  |               |
| P       | Pritchardia hillebrandii                  | lo'ulu, fan palm           | 25'        | 15'       | sea to 1,000'    | Dry to Wet    |
| S       | Mariscus javanicus                        | marsh cypress, 'ahu'awa    | 0.5'       | 0.5'      | sea to 1,000'    | Dry to Medium |
| Sh      | Bidens hillebrandiana ssp. hillebrandiana | ko'oko'olau                | 1'         | 2'        | sea to 1,000'    | Dry to Wet    |
| Sh      | Cordyline fruticosa                       | ti, ki                     | 6'         |           |                  |               |
| Sh      | Hedyotis spp.                             | au, pilo                   | 3'         | 2'        | 1,000' to 3,000' | Dry to Wet    |
| Sh - Tr | Broussonetia papyrifera                   | wauke, paper mulberry      | 8'         | 6'        | sea to 1,000'    | Dry to Medium |
| Tr      | Acacia koa                                | koa                        | 50' - 100' | 40' - 80' | 1,500' to 4,000' | Dry to Medium |
| Tr      | Aleurites moluccana                       | candlenut, kukui           | 50'        | 50'       | sea to 3,000'    | Medium to Wet |
| Tr      | Calophyllum inophyllum                    | kamani, alexandrian laurel | 60'        | 40'       | sea to 3,000'    | Medium to Wet |
| Tr      | Charpentiera obovata                      |                            | 15'        |           |                  |               |
| Tr      | Cordia subcordata                         | kou                        | 30'        | 25'       | sea to 1,000'    | Dry to Wet    |
| Tr      | Hibiscus furcellatus                      | 'akiohala, hau-hele        | 8'         |           |                  |               |
| Tr      | Metrosideros polymorpha var. macrophylla  | ohi'a lehua                | 25'        | 25'       | sea to 1,000'    | Dry to Wet    |
| Tr      | Morinda citrifolia                        | indian mulberry, noni      | 20'        | 15'       | sea to 1,000'    | Dry to Wet    |
| Tr      | Pandanus tectorius                        | hala, puhala (HALELIST)    | 35'        | 25'       | sea to 1,000'    | Dry to Wet    |
| V       | Alyxia oliviformis                        | malle                      | Vine       |           | sea to 6,000'    | Medium to Wet |



# Zone 2

## Zone-specific Native and Polynesian plants for Maui County

TYPE: F Fern G Grass Gr Ground Cover Sh Shrub P Palm S Sedge Tr Tree V Vine

| Type    | Scientific Name  | Common Name                    | Height     | Spread    | Elevation        | Water req.    |
|---------|--|--------------------------------|------------|-----------|------------------|---------------|
| F       | <i>Psilotum nudum</i>                                  | moa, moa kula                  | 1'         | 1'        | sea to 3,000'    | Dry to Wet    |
| F       | <i>Sadleria cyatheoides</i>                            | 'ama'u, ama'uma'u              |            |           |                  |               |
| G       | <i>Eragrostis monticola</i>                            | kalamalo                       | 1'         | 2'        | sea to 3,000'    | Dry to Medium |
| Gr      | <i>Ipomoea tuboides</i>                                | Hawaiian moon flower, 'uala    | 1'         | 10'       | sea to 3,000'    | Dry to Medium |
| Gr      | <i>Peperomia leptostachya</i>                          | 'ala'ala-wai-nui               | 1'         | 1'        | sea to 3,000'    | Dry to Medium |
| Gr      | <i>Plumbago zeylanica</i>                              | 'illie'e                       | 1'         |           |                  |               |
| Gr - Sh | <i>Hibiscus calyphyllus</i>                            | ma'o hau hele, Rock's hibiscus | 3'         | 2'        | sea to 3,000'    | Dry to Medium |
| Gr - Sh | <i>Lipochaeta rockii</i>                               | nehe                           | 2'         | 2'        | sea to 3,000'    | Dry to Medium |
| Sh      | <i>Argemone glauca</i> var. <i>decipiens</i>           | pua kala                       | 3'         | 2'        | sea to 3,000'    | Dry to Medium |
| Sh      | <i>Artemisia mauiensis</i> var. <i>diffusa</i>         | Maui wormwood, 'ahinahina      | 2'         | 3'        | 1,000' to higher | Dry to Medium |
| Sh      | <i>Chenopodium oahuense</i>                            | 'aheahea, 'aweoweo             | 6'         |           | sea to higher    | Dry to Medium |
| Sh      | <i>Dianella sandwicensis</i>                           | 'uki                           | 2'         | 2'        | 1,000' to higher | Dry to Medium |
| Sh      | <i>Lipochaeta lavarum</i>                              | nehe                           | 3'         | 3'        | sea to 3,000'    | Dry to Medium |
| Sh      | <i>Osteomeles anthyllidifolia</i>                      | 'ulei, eluehe                  | 4'         | 6'        | sea to 3,000'    | Dry to Medium |
| Sh      | <i>Senna gaudichaudii</i>                              | kolomana                       | 5'         | 5'        | sea to 3,000'    | Dry to Medium |
| Sh      | <i>Styphelia tamelameiae</i>                           | pukiawe                        | 6'         | 6'        | 1,000' to higher | Dry to Medium |
| Sh      | <i>Vitex rotundifolia</i>                              | pohinahina                     | 3'         | 4'        | sea to 1,000'    | Dry to Medium |
| Sh - Tr | <i>Myoporum sandwicense</i>                            | naio, false sandalwood         | 10'        | 10'       | sea to higher    | Dry to Medium |
| Sh - Tr | <i>Nototrichium sandwicense</i>                        | kulu'i                         | 8'         | 8'        | sea to 3,000'    | Dry to Medium |
| Sh-Tr   | <i>Dodonaea viscosa</i>                                | 'a'ali'i                       | 6'         | 8'        | sea to higher    | Dry to Medium |
| Tr      | <i>Acacia koa</i>                                      | koa                            | 50' - 100' | 40' - 80' | 1,500' to 4,000' | Dry to Medium |
| Tr      | <i>Charpentiera obovata</i>                            |                                | 15'        |           |                  |               |
| Tr      | <i>Erythrina sandwicensis</i>                          | williwili                      | 20'        | 20'       | sea to 1,000'    | Dry           |
| Tr      | <i>Metrosideros polymorpha</i> var. <i>macrophylla</i> | ohi'a lehua                    | 25'        | 25'       | sea to 1,000'    | Dry to Wet    |

## Zone-specific Native and Polynesian plants for Maui County

### Zone 2

| Type | Scientific Name               | Common Name                  | Height | Spread | Elevation        | Water req.    |
|------|-------------------------------|------------------------------|--------|--------|------------------|---------------|
| Tr   | <i>Nestegis sandwicensis</i>  | olopua                       | 15'    | 15'    | 1,000' to 3,000' | Dry to Medium |
| Tr   | <i>Pleomele auwahiensis</i>   | halapepe                     | 20'    |        |                  |               |
| Tr   | <i>Rauvolfia sandwicensis</i> | hao                          | 20'    | 15'    | sea to 3,000'    | Dry to Medium |
| Tr   | <i>Santalum ellipticum</i>    | coastal sandalwood, 'ili-ahi | 8'     | 8'     | sea to 3,000'    | Dry to Medium |
| Tr   | <i>Sophora chrysophylla</i>   | mamane                       | 15'    | 15'    | 1,000' to 3,000' | Medium        |
| V    | <i>Alyxia oliviformis</i>     | maile                        | Vine   |        | sea to 6,000'    | Medium to Wet |

# Zone-specific Native and Polynesian plants for Maui County

## Zone 3

TYPE:

F Fern

G Grass

Gr Ground Cover

Sh Shrub

P Palm

S Sedge

Tr Tree

V Vine

| Type    | Scientific Name   | Common Name                    | Height | Spread | Elevation     | Water req.    |
|---------|---|--------------------------------|--------|--------|---------------|---------------|
| F       | <i>Psilotum nudum</i>                                   | moa, moa kula                  | 1'     | 1'     | sea to 3,000' | Dry to Wet    |
| G       | <i>Colubrina asiatica</i>                               | 'anapanapa                     | 3'     | 10'    | sea to 1,000' | Dry to Wet    |
| G       | <i>Eragrostis monticola</i>                             | kalamalo                       | 1'     | 2'     | sea to 3,000' | Dry to Medium |
| G       | <i>Eragrostis variabilis</i>                            | 'emo-loa                       | 1'     | 2'     | sea to 3,000' | Dry to Medium |
| G       | <i>Fimbristylis cymosa</i> ssp. <i>spathacea</i>        | mau'u'aki'aki fimbriatylis     | 0.5'   | 1'     | sea to 1,000' | Dry to Medium |
| Gr      | <i>Boerhavia repens</i>                                 | alena                          | 0.5'   | 4'     | sea to 1,000' | Dry to Medium |
| Gr      | <i>Chamaesyce celastroides</i> var. <i>laehiensis</i>   | 'akoko                         | 2'     | 3'     | sea to 1,000' | Dry to Medium |
| Gr      | <i>Cressa truxillensis</i>                              | cressa                         | 0.5'   | 1'     | sea to 1,000' | Dry to Medium |
| Gr      | <i>Heliotropium anomalum</i> var. <i>argenteum</i>      | hinahina ku kahakai            | 1'     | 2'     | sea to 1,000' | Dry to Medium |
| Gr      | <i>Ipomoea tuboides</i>                                 | Hawaiian moon flower, 'uala    | 1'     | 10'    | sea to 3,000' | Dry to Medium |
| Gr      | <i>Jacquemontia ovalifolia</i> ssp. <i>sandwicensis</i> | pa'u o hi'iaka                 | 0.5'   | 6'     | sea to 1,000' | Dry to Medium |
| Gr      | <i>Lipochaeta integrifolia</i>                          | nehe                           | 1'     | 5'     | sea to 1,00'  | Dry to Medium |
| Gr      | <i>Peperomia leptostachya</i>                           | 'ala'ala-wai-nui               | 1'     | 1'     | sea to 3,000' | Dry to Medium |
| Gr      | <i>Plumbago zeylanica</i>                               | 'ille'e                        | 1'     |        |               |               |
| Gr      | <i>Sesuvium portulacastrum</i>                          | 'akulikuli, sea-purslane       | 0.5'   | 2'     | sea to 1,000' | Dry to Wet    |
| Gr      | <i>Sida fallax</i>                                      | 'ilima                         | 0.5'   | 3'     | sea to 1,000' | Dry to Medium |
| Gr      | <i>Tephrosia purpurea</i> var. <i>purpurea</i>          | 'auhuhu                        | 2'     | 2'     | sea to 1,000' | Dry to Medium |
| Gr - Sh | <i>Hibiscus calyphyllus</i>                             | ma'o hau hele, Rock's hibiscus | 3'     | 2'     | sea to 3,000' | Dry to Medium |
| Gr - Sh | <i>Lipochaeta rockii</i>                                | nehe                           | 2'     | 2'     | sea to 3,000' | Dry to Medium |
| Gr - Sh | <i>Lipochaeta succulenta</i>                            | nehe                           | 2'     | 5'     | sea to 1,000' | Dry to Wet    |
| Gr - Sh | <i>Lycium sandwicense</i>                               | 'ohelo-kai, 'ae'ae             | 2'     | 2'     | sea to 1,000' | Dry to Medium |
| P       | <i>Cocos nucifera</i>                                   | coconut, niu                   | 100'   | 30'    | sea to 1,000' | Dry to Wet    |
| P       | <i>Pritchardia hillebrandii</i>                         | lo'ulu, fan palm               | 25'    | 15'    | sea to 1,000' | Dry to Wet    |
| S       | <i>Mariscus javanicus</i>                               | marsh cypress, 'ahu'awa        | 0.5'   | 0.5'   | sea to 1,000' | Dry to Medium |

# Zone 3

## Zone-specific Native and Polynesian plants for Maui County

| Type    | Scientific Name                            | Common Name                | Height | Spread | Elevation        | Water req.    |
|---------|--|----------------------------|--------|--------|------------------|---------------|
| Sh      | Argemone glauca var. decipiens             | pua kala                   | 3'     | 2'     | sea to 3,000'    | Dry to Medium |
| Sh      | Bidens mauiensis                           | ko'oko'olau                | 1'     | 3'     | sea to 1,000'    | Dry to Medium |
| Sh      | Bidens menziesii ssp. menziesii            | ko'oko'olau                | 1'     | 3'     |                  |               |
| Sh      | Bidens micrantha ssp. micrantha            | ko'oko'olau                | 1'     | 3'     |                  |               |
| Sh      | Chenopodium oahuense                       | 'aheahea, 'aweoweo         | 6'     |        | sea to higher    | Dry to Medium |
| Sh      | Dianella sandwicensis                      | 'uki                       | 2'     | 2'     | 1,000' to higher | Dry to Medium |
| Sh      | Gossypium tomentosum                       | mao, Hawaiian cotton       | 5'     | 8'     | sea to 1,000'    | Dry to Medium |
| Sh      | Hedyotis spp.                              | au, pilo                   | 3'     | 2'     | 1,000' to 3,000' | Dry to Wet    |
| Sh      | Lipochaeta lavarum                         | nehe                       | 3'     | 3'     | sea to 3,000'    | Dry to Medium |
| Sh      | Osteomeles anthyllifolia                   | 'ulei, eluhe               | 4'     | 6'     | sea to 3,000'    | Dry to Medium |
| Sh      | Scaevola sericea                           | naupaka, naupaka-kahakai   | 6'     | 8'     | sea to 1,000'    | Dry to Medium |
| Sh      | Senna gaudichaudii                         | kolomana                   | 5'     | 5'     | sea to 3,000'    | Dry to Medium |
| Sh      | Solanum nelsonii                           | 'akia, beach solanum       | 3'     | 3'     | sea to 1,00'     | Dry to Medium |
| Sh      | Styphelia tameiameia                       | pukiawe                    | 6'     | 6'     | 1,000' to higher | Dry to Medium |
| Sh      | Vitex rotundifolia                         | pohinahina                 | 3'     | 4'     | sea to 1,000'    | Dry to Medium |
| Sh      | Wikstroemia uva-ursi kauaiensis kauaiensis | 'akia, Molokai osmanthus   |        |        |                  |               |
| Sh - Tr | Broussonetia papyrifera                    | wauke, paper mulberry      | 8'     | 6'     | sea to 1,000'    | Dry to Medium |
| Sh - Tr | Myoporum sandwicense                       | naio, false sandalwood     | 10'    | 10'    | sea to higher    | Dry to Medium |
| Sh - Tr | Nototrichium sandwicense                   | kulu'i                     | 8'     | 8'     | sea to 3,000'    | Dry to Medium |
| Sh-Tr   | Dodonaea viscosa                           | 'a'ali'i                   | 6'     | 8'     | sea to higher    | Dry to Medium |
| Tr      | Aleurites moluccana                        | candlenut, kukui           | 50'    | 50'    | sea to 3,000'    | Medium to Wet |
| Tr      | Calophyllum inophyllum                     | kamani, alexandrian laurel | 60'    | 40'    | sea to 3,000'    | Medium to Wet |
| Tr      | Canthium odoratum                          | Alahe'e, 'oh'e'e, walahe'e | 12'    | 8'     | sea to 3,000'    | Dry to Medium |
| Tr      | Cordia subcordata                          | kou                        | 30'    | 25'    | sea to 1,000'    | Dry to Wet    |
| Tr      | Diospyros sandwicensis                     | lama                       | 12'    | 15'    | sea to 3,000'    | Dry to Medium |
| Tr      | Erythrina sandwicensis                     | wiliwili                   | 20'    | 20'    | sea to 1,000'    | Dry           |
| Tr      | Metrosideros polymorpha var. macrophylla   | ohi'a lehua                | 25'    | 25'    | sea to 1,000'    | Dry to Wet    |

# Zone 3

## Zone-specific Native and Polynesian plants for Maui County

| Type | Scientific Name         | Common Name                  | Height | Spread | Elevation        | Water req.    |
|------|-------------------------|------------------------------|--------|--------|------------------|---------------|
| Tr   | Morinda citrifolia      | indian mulberry, noni        | 20'    | 15'    | sea to 1,000'    | Dry to Wet    |
| Tr   | Nesoluma polynesicum    | keahi                        | 15'    | 15'    | sea to 3,00'     | Dry           |
| Tr   | Nestegis sandwicensis   | olopua                       | 15'    | 15'    | 1,000' to 3,000' | Dry to Medium |
| Tr   | Pandanus tectorius      | hala, puhala (HALELISI)      | 35'    | 25'    | sea to 1,000'    | Dry to Wet    |
| Tr   | Pleomele auwahiensis    | halapepe                     | 20'    |        |                  |               |
| Tr   | Rauwolfia sandwicensis  | hao                          | 20'    | 15'    | sea to 3,000'    | Dry to Medium |
| Tr   | Reynoldsia sandwicensis | 'ohe makai                   | 20'    | 20'    | 1,000' to 3,000' | Dry           |
| Tr   | Santalum ellipticum     | coastal sandalwood, 'ili-ahi | 8'     | 8'     | sea to 3,000'    | Dry to Medium |
| Tr   | Thespesia populnea      | mihi                         | 30'    | 30'    | sea to 3,000'    | Dry to Wet    |





# Zone 4

## Zone-specific Native and Polynesian plants for Maui County

TYPE: F Fern G Grass Gr Ground Cover Sh Shrub P Palm S Sedge Tr Tree V Vine

| Type    | Scientific Name   | Common Name                    | Height | Spread | Elevation        | Water req.    |
|---------|---|--------------------------------|--------|--------|------------------|---------------|
| F       | <i>Psilotum nudum</i>                                   | moa, moa kula                  | 1'     | 1'     | sea to 3,000'    | Dry to Wet    |
| F       | <i>Sadleria cyatheoides</i>                             | 'ama'u, ama'uma'u              |        |        |                  |               |
| G       | <i>Colubrina asiatica</i>                               | 'anapanapa                     | 3'     | 10'    | sea to 1,000'    | Dry to Wet    |
| G       | <i>Eragrostis monticola</i>                             | kalamalo                       | 1'     | 2'     | sea to 3,000'    | Dry to Medium |
| G       | <i>Eragrostis variabilis</i>                            | 'emo-loa                       | 1'     | 2'     | sea to 3,000'    | Dry to Medium |
| G       | <i>Fimbristylis cymosa</i> ssp. <i>spathacea</i>        | mau'u'aki'aki fimbriatylis     | 0.5'   | 1'     | sea to 1,000'    | Dry to Medium |
| Gr      | <i>Chamaesyce celastroides</i> var. <i>laehiensis</i>   | 'akoko                         | 2'     | 3'     | sea to 1,000'    | Dry to Medium |
| Gr      | <i>Ipomoea tuboides</i>                                 | Hawaiian moon flower, 'uala    | 1'     | 10'    | sea to 3,000'    | Dry to Medium |
| Gr      | <i>Jacquemontia ovalifolia</i> ssp. <i>sandwicensis</i> | pa'u o hi'iaka                 | 0.5'   | 6'     | sea to 1,000'    | Dry to Medium |
| Gr      | <i>Lipochaeta integrifolia</i>                          | nehe                           | 1'     | 5'     | sea to 1,00'     | Dry to Medium |
| Gr      | <i>Peperomia leptostachya</i>                           | 'ala'ala-wal-nui               | 1'     | 1'     | sea to 3,000'    | Dry to Medium |
| Gr      | <i>Plumbago zeylanica</i>                               | 'ilie'e                        | 1'     |        |                  |               |
| Gr      | <i>Sida fallax</i>                                      | 'ilima                         | 0.5'   | 3'     | sea to 1,000'    | Dry to Medium |
| Gr      | <i>Tephrosia purpurea</i> var. <i>purpurea</i>          | 'auhuu                         | 2'     | 2'     | sea to 1,000'    | Dry to Medium |
| Gr - Sh | <i>Hibiscus calyphyllus</i>                             | ma'o hau hele, Rock's hibiscus | 3'     | 2'     | sea to 3,000'    | Dry to Medium |
| Gr - Sh | <i>Lipochaeta rockii</i>                                | nehe                           | 2'     | 2'     | sea to 3,000'    | Dry to Medium |
| Gr - Sh | <i>Lipochaeta succulenta</i>                            | nehe                           | 2'     | 5'     | sea to 1,000'    | Dry to Wet    |
| P       | <i>Cocos nucifera</i>                                   | coconut, niu                   | 100'   | 30'    | sea to 1,000'    | Dry to Wet    |
| P       | <i>Pritchardia arecina</i>                              | lo'ulu, hawane                 | 40'    | 10'    | 1,000' to 3,000' | Dry to Wet    |
| P       | <i>Pritchardia forbesiana</i>                           | lo'ulu                         | 15'    |        |                  |               |
| P       | <i>Pritchardia hillebrandii</i>                         | lo'ulu, fan palm               | 25'    | 15'    | sea to 1,000'    | Dry to Wet    |
| S       | <i>Mariscus javanicus</i>                               | marsh cypress, 'ahu'awa        | 0.5'   | 0.5'   | sea to 1,000'    | Dry to Medium |
| Sh      | <i>Argemone glauca</i> var. <i>decipiens</i>            | pua kala                       | 3'     | 2'     | sea to 3,000'    | Dry to Medium |
| Sh      | <i>Artemisia australis</i>                              | 'ahinahina                     | 2'     | 3'     | sea to 3,000'    | Dry to Medium |

# Zone-specific Native and Polynesian plants for Maui County

## Zone 4

| Type    | Scientific Name                            | Common Name                | Height     | Spread    | Elevation        | Water req.    |
|---------|--|----------------------------|------------|-----------|------------------|---------------|
| Sh      | Artemisia mauiensis var. diffusa           | Maui wormwood, 'ahinahina  | 2'         | 3'        | 1,000' to higher | Dry to Medium |
| Sh      | Bidens hillebrandiana ssp. hillebrandiana  | ko'oko'olau                | 1'         | 2'        | sea to 1,000'    | Dry to Wet    |
| Sh      | Bidens menziesii ssp. menziesii            | ko'oko'olau                | 1'         | 3'        |                  |               |
| Sh      | Bidens micrantha ssp. micrantha            | ko'oko'olau                | 1'         | 3'        |                  |               |
| Sh      | Cordyline fruticosa                        | ti, ki                     | 6'         |           |                  |               |
| Sh      | Dianella sandwicensis                      | 'uki                       | 2'         | 2'        | 1,000' to higher | Dry to Medium |
| Sh      | Lipochaeta lamarum                         | nehe                       | 3'         | 3'        | sea to 3,000'    | Dry to Medium |
| Sh      | Osteomeles anthyllifolia                   | 'ulei, eluehe              | 4'         | 6'        | sea to 3,000'    | Dry to Medium |
| Sh      | Scaevola sericea                           | naupaka, naupaka-kahakai   | 6'         | 8'        | sea to 1,000'    | Dry to Medium |
| Sh      | Solanum nelsonii                           | 'akia, beach solanum       | 3'         | 3'        | sea to 1,00'     | Dry to Medium |
| Sh      | Styphelia tameiameia                       | pukiawe                    | 6'         | 6'        | 1,000' to higher | Dry to Medium |
| Sh      | Vitex rotundifolia                         | pohinahina                 | 3'         | 4'        | sea to 1,000'    | Dry to Medium |
| Sh      | Wikstroemia uva-ursi kauaiensis kauaiensis | 'akia, Molokai osmanthus   |            |           |                  |               |
| Sh - Tr | Broussonetia papyrifera                    | wauke, paper mulberry      | 8'         | 6'        | sea to 1,000'    | Dry to Medium |
| Sh - Tr | Myoporum sandwicense                       | naio, false sandalwood     | 10'        | 10'       | sea to higher    | Dry to Medium |
| Sh - Tr | Notofrichium sandwicense                   | kulu'i                     | 8'         | 8'        | sea to 3,000'    | Dry to Medium |
| Sh - Tr | Dodonaea viscosa                           | 'a'ali'i                   | 6'         | 8'        | sea to higher    | Dry to Medium |
| Tr      | Acacia koa                                 | koa                        | 50' - 100' | 40' - 80' | 1,500' to 4,000' | Dry to Medium |
| Tr      | Aleurites moluccana                        | candlenut, kukui           | 50'        | 50'       | sea to 3,000'    | Medium to Wet |
| Tr      | Calophyllum inophyllum                     | kamani, alexandrian laurel | 60'        | 40'       | sea to 3,000'    | Medium to Wet |
| Tr      | Canthium odoratum                          | Alahe'e, 'one'e, walahe'e  | 12'        | 8'        | sea to 3,000'    | Dry to Medium |
| Tr      | Charpentiera obovata                       |                            | 15'        |           |                  |               |
| Tr      | Cordia subcordata                          | kou                        | 30'        | 25'       | sea to 1,000'    | Dry to Wet    |
| Tr      | Diospyros sandwicensis                     | lama                       | 12'        | 15'       | sea to 3,000'    | Dry to Medium |
| Tr      | Hibiscus furcellatus                       | 'akiohala, hau-hele        | 8'         |           |                  |               |
| Tr      | Metrosideros polymorpha var. macrophylla   | ohi'a lehua                | 25'        | 25'       | sea to 1,000'    | Dry to Wet    |
| Tr      | Morinda citrifolia                         | Indian mulberry, noni      | 20'        | 15'       | sea to 1,000'    | Dry to Wet    |

# Zone-specific Native and Polynesian plants for Maui County

## Zone 4

| Type | Scientific Name        | Common Name                  | Height | Spread | Elevation        | Water req.    |
|------|------------------------|------------------------------|--------|--------|------------------|---------------|
| Tr   | Nestegis sandwicensis  | olopua                       | 15'    | 15'    | 1,000' to 3,000' | Dry to Medium |
| Tr   | Pandanus tectorius     | hala, puhala (HALELIST)      | 35'    | 25'    | sea to 1,000'    | Dry to Wet    |
| Tr   | Pleomele auwahiensis   | halapepe                     | 20'    |        |                  |               |
| Tr   | Rauvolfia sandwicensis | hao                          | 20'    | 15'    | sea to 3,000'    | Dry to Medium |
| Tr   | Santalum ellipticum    | coastal sandalwood, 'ili-ahi | 8'     | 8'     | sea to 3,000'    | Dry to Medium |
| Tr   | Sophora chrysophylla   | mamane                       | 15'    | 15'    | 1,000' to 3,000' | Medium        |
| Tr   | Thespesia populnea     | milo                         | 30'    | 30'    | sea to 3,000'    | Dry to Wet    |
| V    | Alyxia oliviformis     | maile                        | Vine   |        | sea to 6,000'    | Medium to Wet |



# Zone 5

## Zone-specific Native and Polynesian plants for Maui County

| TYPE:   | F Fern                                    | G Grass                        | Gr Ground Cover | Sh Shrub | P Palm           | S Sedge       | Tr Tree | V Vine |
|---------|---|--------------------------------|-----------------|----------|------------------|---------------|---------|--------|
| Type    | Scientific Name                           | Common Name                    | Height          | Spread   | Elevation        | Water req.    |         |        |
| G       | Colubrina asiatica                        | 'anapanapa                     | 3'              | 10'      | sea to 1,000'    | Dry to Wet    |         |        |
| G       | Eragrostis variabilis                     | 'emo-loa                       | 1'              | 2'       | sea to 3,000'    | Dry to Medium |         |        |
| G       | Fimbristylis cymosa ssp. spathacea        | mau'u'aki'aki fimbristylis     | 0.5'            | 1'       | sea to 1,000'    | Dry to Medium |         |        |
| Gr      | Boerhavia repens                          | alena                          | 0.5'            | 4'       | sea to 1,000'    | Dry to Medium |         |        |
| Gr      | Chamaesyce celastroides var. laehiensis   | 'akoko                         | 2'              | 3'       | sea to 1,000'    | Dry to Medium |         |        |
| Gr      | Cressa truxillensis                       | cressa                         | 0.5'            | 1'       | sea to 1,000'    | Dry to Medium |         |        |
| Gr      | Heliotropium anomalum var. argenteum      | hinahina ku kahakai            | 1'              | 2'       | sea to 1,000'    | Dry to Medium |         |        |
| Gr      | Jacquemontia ovalifolia ssp. sandwicensis | pa'u o hi'iaka                 | 0.5'            | 6'       | sea to 1,000'    | Dry to Medium |         |        |
| Gr      | Lipochaeta integrifolia                   | nehe                           | 1'              | 5'       | sea to 1,00'     | Dry to Medium |         |        |
| Gr      | Sesuvium portulacastrum                   | 'akulikuli, sea-purslane       | 0.5'            | 2'       | sea to 1,000'    | Dry to Wet    |         |        |
| Gr      | Sida fallax                               | 'ilima                         | 0.5'            | 3'       | sea to 1,000'    | Dry to Medium |         |        |
| Gr      | Tephrosia purpurea var. purpurea          | 'auhuhu                        | 2'              | 2'       | sea to 1,000'    | Dry to Medium |         |        |
| Gr - Sh | Hibiscus calyphyllus                      | ma'o hau hele, Rock's hibiscus | 3'              | 2'       | sea to 3,000'    | Dry to Medium |         |        |
| Gr - Sh | Lycium sandwicense                        | 'ohelo-kai, 'ae'ae             | 2'              | 2'       | sea to 1,000'    | Dry to Medium |         |        |
| P       | Cocos nucifera                            | coconut, niu                   | 100'            | 30'      | sea to 1,000'    | Dry to Wet    |         |        |
| P       | Pritchardia hillebrandii                  | lo'ulu, fan palm               | 25'             | 15'      | sea to 1,000'    | Dry to Wet    |         |        |
| S       | Mariscus javanicus                        | marsh cypress, 'ahu'awa        | 0.5'            | 0.5'     | sea to 1,000'    | Dry to Medium |         |        |
| Sh      | Argemone glauca var. decipiens            | pua kala                       | 3'              | 2'       | sea to 3,000'    | Dry to Medium |         |        |
| Sh      | Artemisia australis                       | 'ahinahina                     | 2'              | 3'       | sea to 3,000'    | Dry to Medium |         |        |
| Sh      | Bidens hillebrandiana ssp. hillebrandiana | ko'oko'olau                    | 1'              | 2'       | sea to 1,000'    | Dry to Wet    |         |        |
| Sh      | Bidens mauiensis                          | ko'oko'olau                    | 1'              | 3'       | sea to 1,000'    | Dry to Medium |         |        |
| Sh      | Chenopodium oahuense                      | 'aheahea, 'aweoweo             | 6'              |          | sea to higher    | Dry to Medium |         |        |
| Sh      | Dianella sandwicensis                     | 'uki                           | 2'              | 2'       | 1,000' to higher | Dry to Medium |         |        |
| Sh      | Gossypium tomentosum                      | mao, Hawaiian cotton           | 5'              | 8'       | sea to 1,000'    | Dry to Medium |         |        |

# Zone 5

## Zone-specific Native and Polynesian plants for Maui County

| Type    | Scientific Name                            | Common Name                   | Height | Spread | Elevation        | Water req.    |
|---------|--|-------------------------------|--------|--------|------------------|---------------|
| Sh      | Hedyotis spp.                              | au, pilo                      | 3'     | 2'     | 1,000' to 3,000' | Dry to Wet    |
| Sh      | Lipochaeta lavarum                         | nehe                          | 3'     | 3'     | sea to 3,000'    | Dry to Medium |
| Sh      | Osteomeles anthyllidifolia                 | 'ulei, eluehe                 | 4'     | 6'     | sea to 3,000'    | Dry to Medium |
| Sh      | Scaevola sericea                           | naupaka, naupaka-kahakai      | 6'     | 8'     | sea to 1,000'    | Dry to Medium |
| Sh      | Senna gaudichaudii                         | kolomana                      | 5'     | 5'     | sea to 3,000'    | Dry to Medium |
| Sh      | Solanum nelsonii                           | 'akia, beach solanum          | 3'     | 3'     | sea to 1,00'     | Dry to Medium |
| Sh      | Vitex rotundifolia                         | pohinahina                    | 3'     | 4'     | sea to 1,000'    | Dry to Medium |
| Sh      | Wikstroemia uva-ursi kauaiensis kauaiensis | 'akia, Molokai osmanthus      |        |        |                  |               |
| Sh - Tr | Myoporum sandwicense                       | nalo, false sandalwood        | 10'    | 10'    | sea to higher    | Dry to Medium |
| Sh-Tr   | Dodonaea viscosa                           | 'a'ali'i                      | 6'     | 8'     | sea to higher    | Dry to Medium |
| Tr      | Aleurites moluccana                        | candlenut, kukui              | 50'    | 50'    | sea to 3,000'    | Medium to Wet |
| Tr      | Calophyllum inophyllum                     | kamani, alexandrian laurel    | 60'    | 40'    | sea to 3,000'    | Medium to Wet |
| Tr      | Cordia subcordata                          | kou                           | 30'    | 25'    | sea to 1,000'    | Dry to Wet    |
| Tr      | Hibiscus furcellatus                       | 'akiohala, hau-hele           | 8'     |        |                  |               |
| Tr      | Morinda citrifolia                         | indian mulberry, noni         | 20'    | 15'    | sea to 1,000'    | Dry to Wet    |
| Tr      | Pandanus tectorius                         | hala, puhala (HALELIST)       | 35'    | 25'    | sea to 1,000'    | Dry to Wet    |
| Tr      | Thespesia populnea                         | milo                          | 30'    | 30'    | sea to 3,000'    | Dry to Wet    |
| V       | Ipomoea pes-caprae                         | beach morning glory, pohuehue | 1'     |        |                  |               |

# DO NOT PLANT THESE PLANTS !!!

| Common name                             | Scientific name                 | Plant family    |
|---|---------------------------------|-----------------|
| black wattle                            | Acacia mearnsii                 | Mimosaceae      |
| blackberry                              | Rubus argutus                   | Rosaceae        |
| blue gum                                | Eucalyptus globulus             | Myrtaceae       |
| bocconia                                | Bocconia frutescens             | Papaveraceae    |
| broad-leaved cordia                     | Cordia alliodora                | Boraginaceae    |
| broomsedge, yellow bluestem             | Andropogon virginicus           | Poaceae         |
| buffelgrass                             | Cenchrus ciliaris               | Poaceae         |
| butterfly bush, smoke bush              | Buddleia madagascariensis       | Buddleiaceae    |
| cats claw, Mysore thorn, wait-a-bit     | Caesalpinia decapetala          | Caesalpinaceae  |
| common ironwood                         | Casuarina equisetifolia         | Casuarinaceae   |
| common velvet grass, Yorkshire fog      | Holcus lanatus                  | Poaceae         |
| fiddlewood                              | Citharexylum spinosum           | Verbenaceae     |
| fire tree, faya tree                    | Myrica faya                     | Myricaceae      |
| glorybower                              | Clerodendrum laponicum          | Verbenaceae     |
| hairy cat's ear, gosmore                | Hypochoeris radicata            | Asteraceae      |
| haole koa                               | Leucaena leucocephala           | Fabaceae        |
| ivy gourd, scarlet-fruited gourd        | Coccoloba grandis               | Cucurbitaceae   |
| juniper berry                           | Citharexylum caudatum           | Verbenaceae     |
| kahili flower                           | Grevillea banksii               | Proteaceae      |
| klu, popinac                            | Acacia farnesiana               | Mimosaceae      |
| logwood, bloodwood tree                 | Haematoxylon campechianum       | Caesalpinaceae  |
| loquat                                  | Eriobotrya japonica             | Rosaceae        |
| meadow ricegrass                        | Ehrharta stipoides              | Poaceae         |
| melaleuca                               | Melaleuca quinquenervia         | Myrtaceae       |
| miconia, velvet leaf                    | Miconia calvescens              | Melastomataceae |
| narrow-leaved carpetgrass               | Axonopus fissifolius            | Poaceae         |
| oleaster                                | Elaeagnus umbellata             | Elaeagnaceae    |
| oriental mangrove                       | Bruguiera gymnorhiza            | Rhizophoraceae  |
| padang cassia                           | Cinnamomum burmannii            | Lauraceae       |
| palmgrass                               | Setaria palmifolia              | Poaceae         |
| pearl flower                            | Heterocentron subtripplinervium | Melastomataceae |
| quinine tree                            | Cinchona pubescens              | Rubiaceae       |
| satin leaf, caimitillo                  | Chrysophyllum oliviforme        | Sapotaceae      |
| silkwood, Queensland maple              | Flindersia brayleyana           | Rutaceae        |
| silky oak, silver oak                   | Grevillea robusta               | Proteaceae      |
| strawberry guava                        | Psidium cattleianum             | Myrtaceae       |
| swamp oak, saltmarsh, longleaf ironwood | Casuarina glauca                | Casuarinaceae   |
| sweet vernalgrass                       | Anthoxanthum odoratum           | Poaceae         |
| tree of heaven                          | Ailanthus altissima             | Simaroubaceae   |
| trumpet tree, guarumo                   | Cecropia obtusifolia            | Cecropiaceae    |
| white ginger                            | Hedyochium coronarium           | Zingiberaceae   |
| white moho                              | Heliconia popayanensis          | Tiliaceae       |
| yellow ginger                           | Hedychium flavescens            | Zingiberaceae   |



# DO NOT PLANT THESE PLANTS !!!

| Common name                             | Scientific name          | Plant family    |
|---|--------------------------|-----------------|
|   | Jasminum fluminense      | Oleaceae        |
|   | Arthrostemma ciliatum    | Melastomataceae |
|   | Dissotis rotundifolia    | Melastomataceae |
|   | Erigeron karvinskianus   | Asteraceae      |
|   | Eucalyptus robusta       | Myrtaceae       |
|   | Hedychium gardnerianum   | Zingiberaceae   |
|   | Juncus planifolius       | Juncaceae       |
|   | Lophostemon confertus    | Myrtaceae       |
|   | Medinilla cumingii       | Melastomataceae |
|   | Medinilla magnifica      | Melastomataceae |
|   | Medinilla venosa         | Melastomataceae |
|   | Melastoma candidum       | Melastomataceae |
|   | Melinis minutiflora      | Poaceae         |
|   | Olea europaea            | Melastomataceae |
|   | Oxyspora paniculata      | Poaceae         |
|   | Panicum maximum          | Poaceae         |
|   | Paspalum urvillei        | Poaceae         |
|   | Passiflora edulis        | Passifloraceae  |
|   | Phormium tenax           | Agavaceae       |
|   | Pinus taeda              | Pinaceae        |
|   | Prosopis pallida         | Fabaceae        |
|   | Pterolepis glomerata     | Melastomataceae |
|   | Rhodomyrtus tomentosa    | Myrtaceae       |
|   | Schefflera actinophylla  | Araliaceae      |
|   | Syzygium jambos          | Myrtaceae       |
|   | Acacia melanoxylon       | Mimosaceae      |
| Australian blackwood                    | Cyathea cooperi          | Cyatheaceae     |
| Australian tree fern                    | Sphaeropteris cooperi    | Cyatheaceae     |
| Australian tree fern                    | Bidens pilosa            | Asteraceae      |
| Beggar's tick, Spanish needle           | Bracharia mulica         | Poaceae         |
| California grass                        | Ficus microcarpa         | Moraceae        |
| Chinese banyon, Maylayan banyon         | Asystasia gangetica      | Acanthaceae     |
| Chinese violet                          | Schinus terebinthifolius | Anacardiaceae   |
| Christmasberry, Brazilian pepper        | Acacia confusa           | Mimosaceae      |
| Formosan koa                            | Senecio mikanioides      | Asteraceae      |
| German ivy                              | Lonicera japonica        | Caprifoliaceae  |
| Japanese honeysuckle                    | Clidemia hirta           | Melastomataceae |
| Koster's curse                          | Lantana camara           | Verbenaceae     |
| Lantana                                 | Furcraea foetida         | Agavaceae       |
| Mauritius hemp                          | Fraxinus uhdei           | Oleaceae        |
| Mexican ash, tropical ash               | Hunnemannia fumariifolia | Papaveraceae    |
| Mexican tulip poppy                     | Angiopteris evecta       | Marattiaceae    |
| Mules foot, Madagascar tree fern        | Corynocarpus laevigatus  | Corynocarpaceae |
| New Zealand laurel, karakaranut         | Lepospermum scoparium    | Myrtaceae       |
| New Zealand tea                         | Cortaderia jubata        | Poaceae         |
| Pampas grass                            | Castilleja elastica      | Moraceae        |
| Panama rubber tree, Mexican rubber tree | Ardisia elliptica        | Myrsinaceae     |
| Shoebutton ardisia                      | Passiflora mollissima    | Passifloraceae  |
| banana poka                             |                          |                 |

## Selection

As a general rule, it is best to select the largest and healthiest specimens. However, be sure to note that they are not pot-bound. Smaller, younger plants may result in a low rate of plant survival.<sup>1</sup> When selecting native species, consider the site they are to be planted in, and the space that you have to plant. For example: Mountain species such as koa and maile will not grow well in hot coastal areas exposed to strong ocean breezes. Lowland and coastal species such as wiliwili and Kou require abundant sunshine and porous soil. They will not grow well with frequent cloud cover, high rainfall and heavy soil.

Consider too, the size that the species will grow to be. It is not wise to plant trees that will grow too large.<sup>2</sup> Overplanting tends to be a big problem in the landscape due to the underestimation of a species' height, width or spread.

A large, dense canopied tree such as the kukui is a good shade tree for a lawn. However, its canopy size and density of shade will limit what can be planted in the surrounding area. Shade cast by a koa and ohia lehua is relatively light and will not inhibit growth beneath it.

Keep seasons in mind when you are selecting your plants. Not all plants look good year round, some plants such as ilima will look scraggly after they have flowered and formed seeds. Avoid planting large areas with only one native plant. Mixing plants which naturally grow together will ensure the garden will look good all year round.<sup>3</sup> Looking at natural habitats helps to show how plants grow naturally in the landscape.

When planting an area with a mixed-ecosystem, keep in mind the size and ecological requirements of each plant. Start with the hardiest and most easily grown species, but allow space for fragile ones in subsequent plantings.

## Acquiring natives

Plants in their wild habitat must be protected and maintained. It is best and easiest to get your plants from nurseries (see list), or friend's gardens. Obtain proper permits from landowners and make sure you follow a few common sense rules:

- ▶ collect sparingly from each plant or area.
- ▶ some plants are on the state or Federal Endangered Species list. Make sure you get permits (see app. A,B)

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<sup>1</sup> K. Nagata, P.6

<sup>2</sup> K. Nagata, P.9

<sup>3</sup> Nagata, P.9

## Soil

Once you have selected your site and the plants you wish to establish there, you must look at the soil conditions on the site. Proper soil is necessary for the successful growth of most native plants, which preform poorly in hard pan, clay or adobe soils. If natives are to be planted in these types of soil, it would be wise to dig planting holes several times the size of the rootball and backfill with 50-75% compost.<sup>4</sup> A large planting hole ensures the development of a strong root system. The plant will have a headstart before the roots penetrate the surrounding poor soil.<sup>5</sup>

It is recommended that native plants not be planted in ground that is more dense than potting soil. If there is no alternative, dig a hole in a mound of soil mixed with volcanic cinder which encourages maximum root development. Fill the hole with water, if the water tends to puddle or drain too slowly, dig a deeper hole until the water does not puddle longer than 1 or 2 minutes.<sup>6</sup> Well-drained soil is one of the most important things when planting natives as you will see in the next section.

## Irrigation

Most natives do very poorly in waterlogged conditions. Do not water if the soil is damp. Water when the soil is dry and the plants are wilting. Once established, a good soaking twice a week should suffice. Deep soaking encourages the development of stronger, and deeper root systems. This is better than frequent and shallow watering which encourage weaker, more shallow root systems.

The following is a watering schedule from Kenneth Nagata's Booklet, *How To Plant A Native Hawaiian Garden*:

### WATER REQUIREMENT

Heavy  
Moderate  
Light

### WATERING FREQUENCY

3x / week  
2x / week  
1x / week

Red clay soils hold more water for a longer period of time than sandy soils do. If your area is very sunny or near a beach, things will dry out faster. Even in the area of one garden, there are parts that will need more or less water. Soils can vary and amount of shade and wind differ. After plants are established (a month or two for most plants, up to a year for some trees), you can back off watering.

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<sup>4</sup> Nagata, p. 6

<sup>5</sup> Nagata, p. 8

<sup>6</sup> Nagata, p. 8

Automatic sprinkler systems are expensive to install and must be checked and adjusted regularly. Above-ground systems allow you to monitor how much water is being put out, but you lose a lot due to malfunctioning of sprinkler heads and wind. The most efficient way to save water and make sure your plants get enough water, is to hand-water. This way you are getting our precious water to the right places in the right amounts.<sup>7</sup>

## Fertilizer

An all-purpose fertilizer 10-10-10 is adequate for most species. They should be applied at planting time, 3 months later, and 6 months thereafter. Use half the dosage recommended for ornamentals and pay special attention to native ferns which are sensitive to strong fertilizers. Use of organic composts and aged animal manures is suggested instead of chemical fertilizers. In addition, use of cinders for providing trace minerals is strongly recommended.<sup>8</sup>

Natives are plants which were here hundreds of years before the polynesians inhabited the Hawaiian Islands. They were brought here by birds, or survived the harsh ocean conditions to float here. They are well-adapted to Hawaii's varying soil and environmental conditions. This is why they make prime specimens for a xeriscape garden. However, natives will not thrive on their own, especially under harsh conditions. On the other hand, like any other plant, if you over-water and over-fertilize them, they will die. Follow the instructions given to you by the nursery you buy the plant from, or from this booklet. Better yet, buy a book (suggested readings can be found in the bibliography in the back of this pamphlet), read it, and learn more about native plants. I guarantee that you will be pleased with the results.

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<sup>7</sup> Bornhorst, p. 19-20

<sup>8</sup> Nagata, p. 6



## Propagation

There are many ways to propagate and plant-out native Hawaiian species. One of the most thorough and helpful book is Heidi Bornhorst's book, *Growing Native Hawaiian Plants*. The easiest, and best way to obtain natives for the novice gardener is to get them from a reputable nursery (see appendix c). That way all you will have to do is know how to transplant (if necessary) and plant-out when you are ready. These are the two methods I have listed here.

### Transplanting

1. Use pots that are one size bigger than the potted plant is in
2. Get your potting medium ready

Good potting medium is a ½, ½ mixture of peat moss and perlite. If the plant is from a dry or coastal area, add chunks of cinder or extra perlite. If it is a wet forest species, add more peat moss or compost. Be aware that peat moss is very acidic and certain plants react severely to acidity.

If the plant is to eventually be planted into the ground, make a mix of equal parts peat moss, perlite, and soil from the area in which the plant is to be planted. Slow-release fertilizer can be mixed into the potting medium.

3. Once pots, potting medium, fertilizer and water are ready, you can begin re-potting. Keep the plant stem at the same depth it was in the original pot. Avoid putting the plant in too large a pot, as the plant may not be able to soak up all the water in the soil and the roots may drown and rot.

Mix potting medium and add slow-release fertilizer at this time. Pre-wet the medium to keep dust down and lessen shock to the plant. Put medium in bottom of pot. Measure for the correct depth in the new pot. Make sure there is from ½ to 2 inches from the top of the pot so the plant can get adequate water. Try to stand the plant upright and center the stem in the middle of the pot.

Water the plant thoroughly after transplanting. A vitamin B-1 transplanting solution can help to lessen the transplant shock. Keep the plant in the same type of environment as it was before, sun or shade. If roots were broken, trim off some of the leaves to compensate for the loss.<sup>9</sup>

### Planting out

1. Plant most native Hawaiian plants in a sunny location in soil that is well-drained.
  2. Make the planting hole twice as wide as the root ball or present pot, and just as deep.
- If the soil is clay-like, and drains slowly, mix in some coarse red or bland cinder, coarse perlite or

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<sup>9</sup> Bornhorst, p.20-21

coarse compost. Place some slow-release fertilizer at the bottom of the hole.

3. Carefully remove the plant from the container and place it in the hole.

The top of the soil should be at the same level as the top of the hole, if it is too high or too low, adjust the soil level so that the plant is at the right depth.

4. Water thoroughly after you transplant.

## Mulch

Most natives cannot compete with weeds, and therefore must be weeded around constantly in order to thrive. Mulch is a practical alternative, which discourages and prevents weeds from growing.

Hawaii's hot, humid climate leads to the breaking down of organic mulches. Thick organic mulches such as wood chips and leaves, may also be hiding places for pests.

Stone mulches are attractive, permanent and can help to improve soil quality. Red or black cinder, blue rock chips, smooth river rocks and coral chips are some natural choices.<sup>10</sup> Macadamia nut hulls are also easy to find and can make a nice mulch.<sup>11</sup>

Never pile up mulch right next to the stem or trunk of a plant, keep it a few inches away.

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<sup>10</sup> Bornhorst, p. 24

<sup>11</sup> Nagata, p. 7

## PLACES TO SEE NATIVES ON:

The following places propagate native Hawaiian plants from seeds and/or cuttings. Their purpose is to protect and preserve these native plants. Please contact them before going to view the sites, they can provide valuable information and referral to other sources.

### Maui:

- |  |          |
|--|----------|
| 1. Hoolawa Farms, P.O. Box 731, Haiku, Hawaii, 96708   | 572-4835 |
| 2. The Hawaiian Collection, 1127 Manu St., Kula, Hawaii, 96790   | 878-1701 |
| 3. Kula Botanical Gardens, RR 4, Box 228, Kula, Hawaii, 96790  | 878-1715 |
| 4. Maui Botanical Gardens, Kanaloa Avenue across from stadium  | 243-7337 |
| 5. Kula Forest Reserve, access road at the end of Waipouli Rd.<br>Call the Maui District Forester                                | 984-8100 |
| 6. Wailea Point, Private Condominium residence, 4000 Wailea Alanui,<br>public access points at Four Seasons Resort or Polo Beach | 875-9557 |
| 7. Kahanu Gardens, National Tropical Botanical Garden,<br>Alau Pt, Hana, Hawaii, 96713   | 248-8912 |
| 9. Kahului Library Courtyard, 20 School Street, Kahului, Hawaii  | 873-3097 |



## ZONES

The Maui County Planting Plan has compiled a system of 5 zones of plant growth for Maui County. The descriptions of zones and maps for these zones are as follows:

### Zone 1:

Wet areas on the windward side of the island. More than 40 inches of rain per year. Higher than 3,000 feet.

### Zone 2:

Cool, dry areas in higher elevations (above 1,000 feet). 20 to 40 inches of rain per year.

### Zone 3:

Low, drier areas, warm to hot. Less than 20 inches of rain per year. Sea level to 1,000 feet.

### Zone 4:

Lower elevations which are wetter due to proximity of mountains. 1,000 to 3,000 feet.

### Zone 5:

Salt spray zones in coastal areas on the windward side.

These zones are to be used as a general guide to planting for Maui County. In addition to looking at the maps, read the descriptions of the zones and decide which zone best fits your area. Plants can be listed in more than one zone and can be planted in a variety of conditions. For best results, take notes on the rainfall, wind, sun and salt conditions of your site. Use the zones as a general guide for selection and read about the plants to decide which best fits your needs as far as care and or function.

## **PLACES TO BUY NATIVES ON:**

### **Maui:**

1.     **Hoolawa Farms** **575-5099**  
       **P O Box 731**  
       **Haiku HI 96708**  
       **The largest and best collection of natives**  
       **in the state. They will deliver, but it's**  
       **worth the drive to go and see!**  
       **Will propagate upon request**
  
2.     **Kula True Value Nursery** **878-2551**  
       **Many natives in stock**  
       **Get most of their plants from Hoolawa Farms**  
       **They take special requests**
  
3.     **Kihei Garden and Landscape** **244-3804**
  
4.     **Kihana Nursery, Kihei** **879-1165**
  
5.     **The Hawaiian Collection** **878-1701**  
       **Specialize in Sandalwood propagation**  
       **Will propagate special requests**



## A Checklist of Water Conservation Ideas For

# Commercial Buildings

This checklist provides water conservation tips successfully implemented by industrial and commercial users. This list has been revised from the original copy first published and distributed by the Los Angeles Department of Water and Power.



### General suggestions

Increase employee awareness of water conservation.

Install signs encouraging water conservation in employee and customer restrooms.

When cleaning with water is necessary, use budgeted amounts.

Determine the quantity and purpose of water being used.

Read water meter weekly to monitor success of water conservation efforts.

Assign an employee to monitor water use and waste.

Seek employee suggestions on water conservation; put suggestion boxes in prominent areas.

Determine other methods of water conservation.



### Building maintenance

Check water supply for leaks.

Turn off any unnecessary flows.

Repair dripping faucets and showers and continuously running or leaking toilets.

Install faucet aerators where possible.

Reduce toilet water use by adjusting flush valves or installing dams and flapper mechanisms.

As appliances or fixtures wear out, replace them with water-saving models.

Shut off water supply to equipment rooms not in use.

Minimize the water used in cooling equipment in accordance with manufacturers recommendations. Shut off cooling units when not needed.



### Cafeteria area

Turn off continuous flow used to clean the drain trays.

Turn off dishwasher when not in use. Wash full loads only.

Use water from steam tables to wash down cooking area.

Do not use running water to melt ice or frozen foods.

Use water-conserving ice makers.



ORDINANCE NO. 2108

BILL NO. 6 (1992)

Draft 1

A BILL FOR AN ORDINANCE AMENDING  
CHAPTER 16.20 OF THE MAUI COUNTY  
CODE, PERTAINING TO THE PLUMBING CODE

BE IT ORDAINED BY THE PEOPLE OF THE COUNTY OF MAUI:

SECTION 1. Title 16 of the Maui County Code is amended by adding a new section to Chapter 10 of the Uniform Plumbing Code to be designated and to read as follows:

"16.20.675 Section 1050 added. Chapter 10 of the Uniform Plumbing Code is amended by adding a new section, pertaining to low-flow water fixtures and devices, to be designated and to read as follows:

Sec. 1050 Low-flow water fixtures and devices. (a) This section establishes maximum rates of water flow or discharge for plumbing fixtures and devices in order to promote water conservation.

(b) For the plumbing fixtures and devices covered in this section, manufacturers or their local distributors shall provide proof of compliance with the performance requirements established by the American National Standards Institute (ANSI) and such other proof as may be required by the director of public works. There shall be no charge for this registration process.

(c) Effective December 31, 1992, only plumbing fixtures and devices specified in this section shall be offered for sale or installed in the County of Maui, unless otherwise indicated in this section. All plumbing fixtures and devices which were installed before December 31, 1992, shall be allowed to be used, repaired or replaced after December 31, 1992.

(1) Faucets (kitchen): All kitchen and bar sink faucets shall be designed, manufactured, installed or equipped with a flow control device or aerator which will prevent a water flow rate in excess of two and two-tenths gallons per minute at sixty pounds per square inch of water pressure.

(2) Faucets (lavatory): All lavatory faucets shall be designed, manufactured, installed or equipped with a flow control device or aerator which will prevent a water flow rate in excess of two and two tenths gallons per minute at sixty pounds per square inch of water

pressure.

(3) Faucets (public rest rooms): In addition to the lavatory requirements set forth in paragraph (2), lavatory faucets located in rest rooms intended for use by the general public shall be of the metering or self-closing types.

(4) Hose bibbs: Water supply faucets or valves shall be provided with approved flow control devices which limit flow to a maximum three gallons per minute.

EXCEPTIONS: (A) Hose bibbs or valves not used for fixtures or equipment designated by the director of public works.

(B) Hose bibbs, faucets, or valves serving fixed demand, timing, or water level control appliances, and equipment or holding structures such as water closets, pools, automatic washers, and other similar equipment.

(5) Showerheads: Showerheads, except where provided for safety or emergency reasons, shall be designed, manufactured, or installed with a flow limitation device which will prevent a water flow rate in excess of two and one-half gallons per minute at eighty pounds per square inch of water pressure. The flow limitation device must be a permanent and integral part of the showerhead and must not be removable to allow flow rates in excess of two and one-half gallons per minute or must be mechanically retained requiring force in excess of eight pounds to remove.

(6) Urinals: Urinals shall be designed, manufactured, or installed so that the maximum flush will not exceed one gallon of water. Adjustable type flushometer valves may be used provided they are adjusted so the maximum flush will not exceed one and six tenths gallons of water.

(7) Water closets (toilets): Water closets shall be designed, manufactured, or installed so that the maximum flush will not exceed one and six tenths gallons of water.

(d) Beginning December 31, 1992, it is unlawful to sell or install any plumbing fixtures or devices not specified in this section, except as permitted under this section.


(e) The director of public works may exempt the use of low-flow water fixtures and devices if there is a finding that the use of such fixtures and devices would not be consistent with accepted engineering practices and would be detrimental to the public health, safety and welfare.

(f) Any person violating this section shall be fined \$250 for each violation and shall correct all instances of non-compliance for which a citation is issued. Violation of this section shall constitute a violation as defined in section 701-107 Hawaii Revised Statutes and shall be enforceable by employees of the department of public works. The foregoing fine may also be imposed in a civil, administrative proceeding pursuant to Rules and Regulations adopted by the department of public works in accordance with chapter 91 Hawaii Revised Statutes."

SECTION 2. New material is underscored. In printing this bill, the County Clerk need not include the underscoring.

SECTION 3. This ordinance shall take effect upon its approval.

APPROVED AS TO FORM  
AND LEGALITY:

  
\_\_\_\_\_  
HOWARD M. FUKUSHIMA  
Deputy Corporation Counsel  
County of Maui  
c:\wp51\ords\flows4\pk



WE HEREBY CERTIFY that the foregoing BILL NO.

6

(19 92 ) , Draft 1

1. Passed FINAL READING at the meeting of the Council of the County of Maui, State of Hawaii, held on the 1st day of May , 1992 , by the following votes:

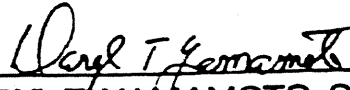
|                              |                                    |                         |                |                 |                   |                     |                  |                                |
|------------------------------|------------------------------------|-------------------------|----------------|-----------------|-------------------|---------------------|------------------|--------------------------------|
| Howard S.<br>KIHUNE<br>Chair | Patrick S.<br>KAWANO<br>Vice-Chair | Vince G.<br>BAGOYO, Jr. | Goro<br>HOKAMA | Alice L.<br>LEE | Ricardo<br>MEDINA | Wayne K.<br>NISHIKI | Joe S.<br>TANAKA | Leinuala<br>TERUYA<br>DRUMMOND |
| Aye                          | Aye                                | Excused                 | Excused        | Aye             | Aye               | Aye                 | Aye              | Aye                            |

2. Was transmitted to the Mayor of the County of Maui, State of Hawaii, on the 1st day of May , 1992 .

DATED AT WAILUKU, MAUI, HAWAII, this 1st day of May , 19 92 .



HOWARD S. KIHUNE, CHAIR  
Council of the County of Maui



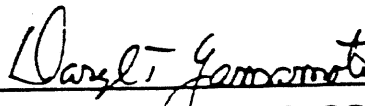
DARYL T. YAMAMOTO, COUNTY CLERK  
County of Maui

THE FOREGOING BILL IS HEREBY APPROVED THIS 5<sup>th</sup> DAY OF MAY , 1992 .



LINDA CROCKETT LINGLE, MAYOR  
County of Maui

I HEREBY CERTIFY that upon approval of the foregoing BILL by the Mayor of the County of Maui, the said BILL was designated as ORDINANCE NO. 2108 of the County of Maui, State of Hawaii.



DARYL T. YAMAMOTO, COUNTY CLERK  
County of Maui

Passed First Reading on January 17, 1992.  
Effective date of Ordinance May 5, 1992.

I HEREBY CERTIFY that the foregoing is a true and correct copy of Ordinance No. 2108 , the original of which is on file in the Office of the County Clerk, County of Maui, State of Hawaii.

Dated at Wailuku, Hawaii, on

County Clerk County of Maui



# **Guidance Specifying Management Measures For Sources Of Nonpoint Pollution In Coastal Waters**

Issued Under the Authority of  
Section 6217(g) of the Coastal Zone Act  
Reauthorization Amendments of 1990

### III. CONSTRUCTION ACTIVITIES

#### A. Construction Site Erosion and Sediment Control Management Measure

- (1) Reduce erosion and, to the extent practicable, retain sediment onsite during and after construction, and
- (2) Prior to land disturbance, prepare and implement an approved erosion and sediment control plan or similar administrative document that contains erosion and sediment control provisions.

#### 1. Applicability

This management measure is intended to be applied by States to all construction activities on sites less than 5 acres in areas that do not have an NPDES permit<sup>3</sup> in order to control erosion and sediment loss from those sites. This management measure does not apply to: (1) construction of a detached single family home on a site of 1/2 acre or more or (2) construction that does not disturb over 5,000 square feet of land on a site. (NOTE: All construction activities, including clearing, grading, and excavation, that result in the disturbance of areas greater than or equal to 5 acres or are a part of a larger development plan are covered by the NPDES regulations and are thus excluded from these requirements.) Under the Coastal Zone Act Reauthorization Amendments of 1990, States are subject to a number of requirements as they develop coastal NPS programs in conformity with this management measure and will have flexibility in doing so. The application of management measures by States is described more fully in *Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance*, published jointly by the U.S. Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce.

#### 2. Description

The goal of this management measure is to reduce the sediment loadings from construction sites in coastal areas that enter surface waterbodies. This measure requires that coastal States establish new or enhance existing State erosion and sediment control (ESC) programs and/or require ESC programs at the local level. It is intended to be part of a comprehensive land use or watershed management program, as previously detailed in the Watershed and Site Development Management Measures. It is expected that State and local programs will establish criteria determined by local conditions (e.g., soil types, climate, meteorology) that reduce erosion and sediment transport from construction sites.

Runoff from construction sites is by far the largest source of sediment in urban areas under development (York County Soil and Water Conservation District, 1990). Soil erosion removes over 90 percent of sediment by tonnage in urbanizing areas where most construction activities occur (Canning, 1988). Table 4-14 illustrates some of the

<sup>3</sup> On May 27, 1992, the United States Court of Appeals for the Ninth Circuit invalidated EPA's exemption of construction sites smaller than 5 acres from the storm water permit program in *Natural Resources Defense Council v. EPA*, 965 F.2d 759 (9th Cir. 1992). EPA is conducting further rulemaking proceedings on this issue and will not require permit applications for construction activities under 5 acres until further rulemaking has been completed.

measured sediment loading rates associated with construction activities found across the United States. As seen in Table 4-14, erosion rates from natural areas such as undisturbed forested lands are typically less than one ton/acre/year, while erosion from construction sites ranges from 7.2 to over 1,000 tons/acre/year.

**Table 4-14. Erosion and Sediment Problems Associated With Construction**

| Location                          | Problem  | Reference  |
|-----------------------------------|--|--|
| United States                     | Sediment loading rates vary from 36.5 to 1,000 ton/ac/yr. These are 5 to 500 times greater than those from undeveloped land. Approximately 600 million tons of soil erodes from developed sites each year. Construction site sediment in runoff can be 10 to 20 times greater than that from agricultural lands. | York County Soil and Water Conservation District, 1990 |
| Franklin County, FL               | Sediment yield (ton/ac/yr):<br>forest < 0.5<br>rangeland < 0.5<br>tilled 1.4<br>construction site 30<br>established urban < 0.5  | Franklin County, FL                                    |
| Wisconsin                         | Erosion rates range from 30 to 200 ton/ac/yr (10 to 20 times those of cropland).   | Wisconsin Legislative Council, 1991                    |
| Washington, DC                    | Erosion rates range from 35 to 45 ton/ac/yr (10 to 100 times greater than agriculture and stabilized urban land uses).   | MWCOG, 1987  |
| Anacostia River Basin, VA, MD, DC | Sediment yields from portions of the Anacostia Basin have been estimated at 75,000 to 132,000 ton/yr.  | U.S. Army Corps of Engineers, 1990                     |
| Washington                        | Erosion rates range from 50 to 500 ton/ac/yr. Natural erosion rates from forests or well-sodded prairies are 0.01 to 1.0 ton/ac/yr.  | Washington Department of Ecology, 1989                 |
| Anacostia River Basin, VA, MD, DC | Erosion rates range from 7.2 to 100.8 ton/ac/yr.   | USGS, 1978   |
| Alabama                           | 1.4 million tons eroded per year.  | Woodward-Clyde, 1991                                   |
| North Carolina                    | 6.7 million tons eroded per year.  |  |
| Louisiana                         | 5.1 million tons eroded per year.  |  |
| Oklahoma                          | 4.2 million tons eroded per year.  |  |
| Georgia                           | 3.8 million tons eroded per year.  |  |
| Texas                             | 3.5 million tons eroded per year.  |  |
| Tennessee                         | 3.3 million tons eroded per year.  |  |
| Pennsylvania                      | 3.1 million tons eroded per year.  |  |
| Ohio                              | 3.0 million tons eroded per year.  |  |
| Kentucky                          | 3.0 million tons eroded per year.  |  |

Eroded sediment from construction sites creates many problems in coastal areas including adverse impacts on water quality, critical habitats, submerged aquatic vegetation (SAV) beds, recreational activities, and navigation (APWA, 1991). For example, the Miami River in Florida has been severely affected by pollution associated with upland erosion. This watershed has undergone extensive urbanization, which has included the construction of many commercial and residential buildings over the past 50 years. Sediment deposited in the Miami River channel contributes to the severe water quality and navigation problems of this once-thriving waterway, as well as Biscayne Bay (SFWMD, 1988).

ESC plans are important for controlling the adverse impacts of construction and land development and have been required by many State and local governments, as shown in Table 4-13 (in the Site Development section of this chapter). An ESC plan is a document that explains and illustrates the measures to be taken to control erosion and sediment problems on construction sites (Connecticut Council on Soil and Water Conservation, 1988). It is intended that existing State and local erosion and sediment control plans may be used to fulfill the requirements of this management measure. Where existing ESC plans do not meet the management measure criteria, inadequate plans may be enhanced to meet the management measure guidelines.

Typically, an ESC plan is part of a larger site plan and includes the following elements:

- Description of predominant soil types;
- Details of site grading including existing and proposed contours;
- Design details and locations for structural controls;
- Provisions to preserve topsoil and limit disturbance;
- Details of temporary and permanent stabilization measures; and
- Description of the sequence of construction.

ESC plans ensure that provisions for control measures are incorporated into the site planning stage of development and provide for the reduction of erosion and sediment problems and accountability if a problem occurs (York County Soil and Water Conservation District, 1990). An effective plan for urban runoff management on construction sites will control erosion, retain sediments on site, to the extent practicable, and reduce the adverse effects of runoff. Climate, topography, soils, drainage patterns, and vegetation will affect how erosion and sediment should be controlled on a site (Washington State Department of Ecology, 1989). An effective ESC plan includes both structural and nonstructural controls. Nonstructural controls address erosion control by decreasing erosion potential, whereas structural controls are both preventive and mitigative because they control both erosion and sediment movement.

Typical nonstructural erosion controls include (APWA, 1991; York County Soil and Water Conservation District, 1990):

- Planning and designing the development within the natural constraints of the site;
- Minimizing the area of bare soil exposed at one time (phased grading);
- Providing for stream crossing areas for natural and man-made areas; and
- Stabilizing cut-and-fill slopes caused by construction activities.

Structural controls include:

- Perimeter controls;
- Mulching and seeding exposed areas;
- Sediment basins and traps; and
- Filter fabric, or silt fences.

Some erosion and soil loss are unavoidable during land-disturbing activities. While proper siting and design will help prevent areas prone to erosion from being developed, construction activities will invariably produce conditions where erosion may occur. To reduce the adverse impacts associated with construction, the construction management measure suggests a system of nonstructural and structural erosion and sediment controls for incorporation into an

ESC plan. Erosion controls have distinct advantages over sediment controls. Erosion controls reduce the amount of sediment transported off-site, thereby reducing the need for sediment controls. When erosion controls are used in conjunction with sediment controls, the size of the sediment control structures and associated maintenance may be reduced, decreasing the overall treatment costs (SWRPC, 1991).

### 3. Management Measure Selection

This management measure was selected to minimize sediment being transported outside the perimeter of a construction site through two broad performance goals: (1) **reduce erosion** and (2) **retain sediment onsite**, to the extent practicable. These performance goals were chosen to allow States and local governments flexibility in specifying practices appropriate for local conditions.

While several commentors responding to the draft (May 1991) guidance expressed the need to define "more measurable, enforceable ways" to control sediment loadings, other commentors stressed the need to draft management measures that do not conflict with existing State programs and allow States and local governments to determine appropriate practices and design standards for their communities. These management measures were selected because virtually all coastal States control construction activities to prevent erosion and sediment loss.

The measures were specifically written for the following reasons:

- (1) Predevelopment loadings may vary greatly, and some sediment loss is usually inevitable;
- (2) Current practice is built on the use of systems of practices selected based on site-specific conditions; and
- (3) The combined effectiveness of erosion and sediment controls in systems is not easily quantified.

### 4. Erosion Control Practices

As discussed more fully at the beginning of this chapter and in Chapter 1, the following practices are described for illustrative purposes only. State programs need not require implementation of these practices. However, as a practical matter, EPA anticipates that the management measure set forth above generally will be implemented by applying one or more management practices appropriate to the source, location, and climate. The practices set forth below have been found by EPA to be representative of the types of practices that can be applied successfully to achieve the management measure described above.

Erosion controls are used to reduce the amount of sediment that is detached during construction and to prevent sediment from entering runoff. Erosion control is based on two main concepts: (1) disturb the smallest area of land possible for the shortest period of time, and (2) stabilize disturbed soils to prevent erosion from occurring.

#### **■ a. Schedule projects so clearing and grading are done during the time of minimum erosion potential.**

Often a project can be scheduled during the time of year that the erosion potential of the site is relatively low. In many parts of the country, there is a certain period of the year when erosion potential is relatively low and construction scheduling could be very effective. For example, in the Pacific region if construction can be completed during the 6-month dry season (May 1 - October 31), temporary erosion and sediment controls may not be needed. In addition, in some parts of the country erosion potential is very high during certain parts of the year such as the spring thaw in northern areas. During this time of year, melting snowfall generates a constant runoff that can erode soil. In addition, construction vehicles can easily turn the soft, wet ground into mud, which is more easily washed offsite. Therefore, in the north, limitations should be placed on grading during the spring thaw (Goldman et al., 1986).

**b. Stage construction.**

Avoid areawide clearance of construction sites. Plan and stage land disturbance activities so that only the area currently under construction is exposed. As soon as the grading and construction in an area are complete, the area should be stabilized.

By clearing only those areas immediately essential for completing site construction, buffer zones are preserved and soil remains undisturbed until construction begins. Physical markers, such as tape, signs, or barriers, indicating the limits of land disturbance, can ensure that equipment operators know the proposed limits of clearing. The area of the watershed that is exposed to construction is important for determining the net amount of erosion. Reducing the extent of the disturbed area will ultimately reduce sediment loads to surface waters. Existing or newly planted vegetation that has been planted to stabilize disturbed areas should be protected by routing construction traffic around and protecting natural vegetation with fencing, tree armoring, retaining walls, or tree wells.

**c. Clear only areas essential for construction.**

Often areas of a construction site are unnecessarily cleared. Only those areas essential for completing construction activities should be cleared, and other areas should remain undisturbed. Additionally, the proposed limits of land disturbance should be physically marked off to ensure that only the required land area is cleared. Avoid disturbing vegetation on steep slopes or other critical areas.

**d. Locate potential nonpoint pollutant sources away from steep slopes, waterbodies, and critical areas.**

Material stockpiles, borrow areas, access roads, and other land-disturbing activities can often be located away from critical areas such as steep slopes, highly erodible soils, and areas that drain directly into sensitive waterbodies.

**e. Route construction traffic to avoid existing or newly planted vegetation.**

Where possible, construction traffic should travel over areas that must be disturbed for other construction activity. This practice will reduce the area that is cleared and susceptible to erosion.

**f. Protect natural vegetation with fencing, tree armoring, and retaining walls or tree wells.**

Tree armoring protects tree trunks from being damaged by construction equipment. Fencing can also protect tree trunks, but should be placed at the tree's drip line so that construction equipment is kept away from the tree. The tree drip line is the minimum area around a tree in which the tree's root system should not be disturbed by cut, fill, or soil compaction caused by heavy equipment. When cutting or filling must be done near a tree, a retaining wall or tree well should be used to minimize the cutting of the tree's roots or the quantity of fill placed over the tree's roots.

**g. Stockpile topsoil and reapply to revegetate site.**

Because of the high organic content of topsoil, it cannot be used as fill material or under pavement. After a site is cleared, the topsoil is typically removed. Since topsoil is essential to establish new vegetation, it should be stockpiled and then reapplied to the site for revegetation, if appropriate. Although topsoil salvaged from the existing site can often be used, it must meet certain standards and topsoil may need to be imported onto the site if the existing topsoil is not adequate for establishing new vegetation.

**h. Cover or stabilize topsoil stockpiles.**

Unprotected stockpiles are very prone to erosion and therefore stockpiles must be protected. Small stockpiles can be covered with a tarp to prevent erosion. Large stockpiles should be stabilized by erosion blankets, seeding, and/or mulching.

**i. Use wind erosion controls.**

Wind erosion controls limit the movement of dust from disturbed soil surfaces and include many different practices. Wind barriers block air currents and are effective in controlling soil blowing. Many different materials can be used as wind barriers, including solid board fence, snow fences, and bales of hay. Sprinkling moistens the soil surface with water and must be repeated as needed to be effective for preventing wind erosion (Delaware DNREC, 1989); however, applications must be monitored to prevent excessive runoff and erosion.

**j. Intercept runoff above disturbed slopes and convey it to a permanent channel or storm drain.**

Earth dikes, perimeter dikes or swales, or diversions can be used to intercept and convey runoff above disturbed areas. An earth dike is a temporary berm or ridge of compacted soil that channels water to a desired location. A perimeter dike/swale or diversion is a swale with a supporting ridge on the lower side that is constructed from the soil excavated from the adjoining swale (Delaware DNREC, 1989). These practices should be used to intercept flow from denuded areas or newly seeded areas to keep the disturbed areas from being eroded from the uphill runoff. The structures should be stabilized within 14 days of installation. A pipe slope drain, also known as a pipe drop structure, is a temporary pipe placed from the top of a slope to the bottom of the slope to convey concentrated runoff down the slope without causing erosion (Delaware DNREC, 1989).

**k. On long or steep, disturbed, or man-made slopes, construct benches, terraces, or ditches at regular intervals to intercept runoff.**

Benches, terraces, or ditches break up a slope by providing areas of low slope in the reverse direction. This keeps water from proceeding down the slope at increasing volume and velocity. Instead, the flow is directed to a suitable outlet, such as a sediment basin or trap. The frequency of benches, terraces, or ditches will depend on the erodibility of the soils, steepness and length of the slope, and rock outcrops. This practice should be used if there is a potential for erosion along the slope.

**l. Use retaining walls.**

Often retaining walls can be used to decrease the steepness of a slope. If the steepness of a slope is reduced, the runoff velocity is decreased and, therefore, the erosion potential is decreased.

**m. Provide linings for urban runoff conveyance channels.**

Often construction increases the velocity and volume of runoff, which causes erosion in newly constructed or existing urban runoff conveyance channels. If the runoff during or after construction will cause erosion in a channel, the channel should be lined or flow control BMPs installed. The first choice of lining should be grass or sod since this reduces runoff velocities and provides water quality benefits through filtration and infiltration. If the velocity in the channel would erode the grass or sod, then riprap, concrete, or gabions can be used.

**n. Use check dams.**

Check dams are small, temporary dams constructed across a swale or channel. They can be constructed using gravel or straw bales. They are used to reduce the velocity of concentrated flow and, therefore, to reduce the erosion in



a swale or channel. Check dams should be used when a swale or channel will be used for a short time and therefore it is not feasible or practical to line the channel or implement flow control BMPs (Delaware DNREC, 1989).

■ o. *Seed and fertilize.*

Seeding establishes a vegetative cover on disturbed areas. Seeding is very effective in controlling soil erosion once a dense vegetative cover has been established. However, often seeding and fertilizing do not produce as thick a vegetative cover as do seed and mulch or netting. Newly established vegetation does not have as extensive a root system as existing vegetation and therefore is more prone to erosion, especially on steep slopes. Care should be taken when fertilizing to avoid untimely or excessive application. Since the practice of seeding and fertilizing does not provide any protection during the time of vegetative establishment, it should be used only on favorable soils in very flat areas and not in sensitive areas.

■ p. *Use seeding and mulch/mats.*

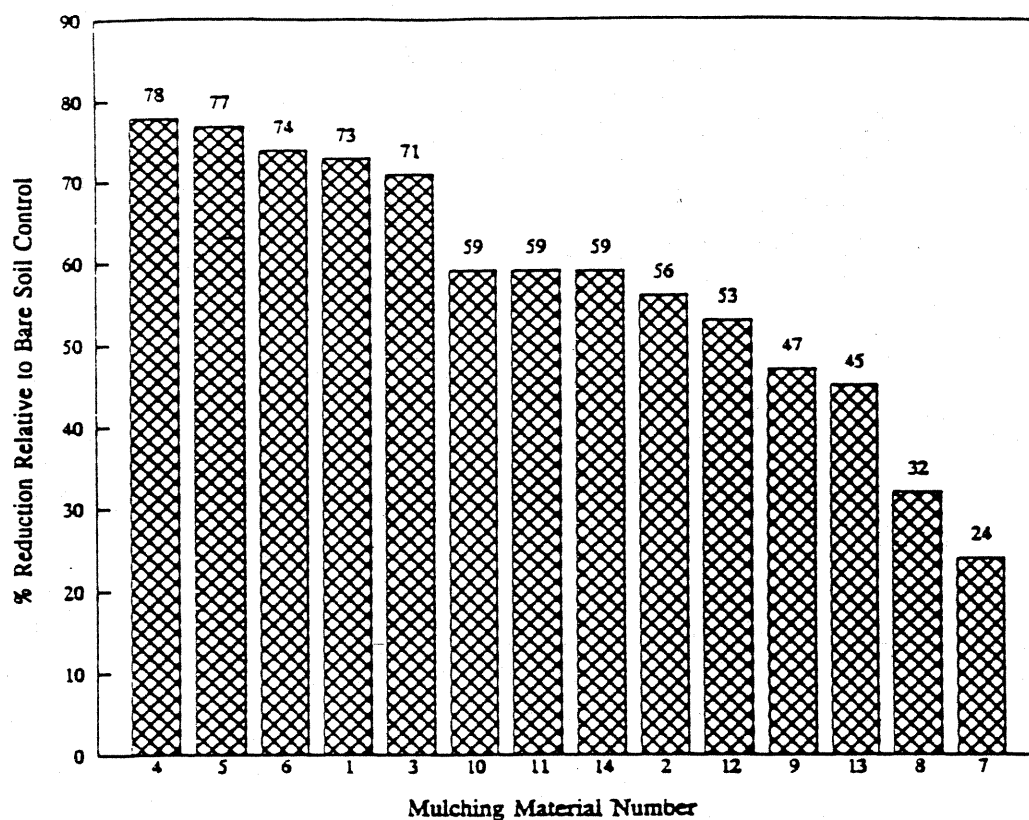
Seeding establishes a vegetative cover on disturbed areas. Seeding is very effective in controlling soil erosion once the vegetative cover has been established. The mulching/mats protect the disturbed area while the vegetation becomes established.

The management of land by using ground cover reduces erosion by reducing the flow rate of runoff and the raindrop impact. Bare soils should be seeded or otherwise stabilized within 15 calendar days after final grading. Denuded areas that are inactive and will be exposed to rain for 30 days or more should also be temporarily stabilized, usually by planting seeds and establishing vegetation during favorable seasons in areas where vegetation can be established. In very flat, non-sensitive areas with favorable soils, stabilization may involve simply seeding and fertilizing. Mulching and/or sodding may be necessary as slopes become moderate to steep, as soils become more erosive, and as areas become more sensitive.

■ q. *Use mulch/mats.*

Mulching involves applying plant residues or other suitable materials on disturbed soil surfaces. Mulchs/mats used include tacked straw, wood chips, and jute netting and are often covered by blankets or netting. Mulching alone should be used only for temporary protection of the soil surface or when permanent seeding is not feasible. The useful life of mulch varies with the material used and the amount of precipitation, but is approximately 2 to 6 months. Figure 4-5 shows water velocity reductions that could be expected using various mulching techniques. Similarly, Figure 4-6 shows reductions in soil loss achievable using various mulching techniques. During times of year when vegetation cannot be established, soil mulching should be applied to moderate slopes and soils that are not highly erodible. On steep slopes or highly erodible soils, multiple mulching treatments should be used. On a high-elevation or desert site where grasses cannot survive the harsh environment, native shrubs may be planted. Interlocking ceramic materials, filter fabric, and netting are available for this purpose. Before stabilizing an area, it is important to have installed all sediment controls and diverted runoff away from the area to be planted. Runoff may be diverted away from denuded areas or newly planted areas using dikes, swales, or pipe slope drains to intercept runoff and convey it to a permanent channel or storm drain. Reserved topsoil may be used to revegetate a site if the stockpile has been covered and stabilized.

Consideration should be given to maintenance when designing mulching and matting schemes. Plastic nets are often used to cover the mulch or mats; however, they can foul lawn mower blades if the area requires mowing.

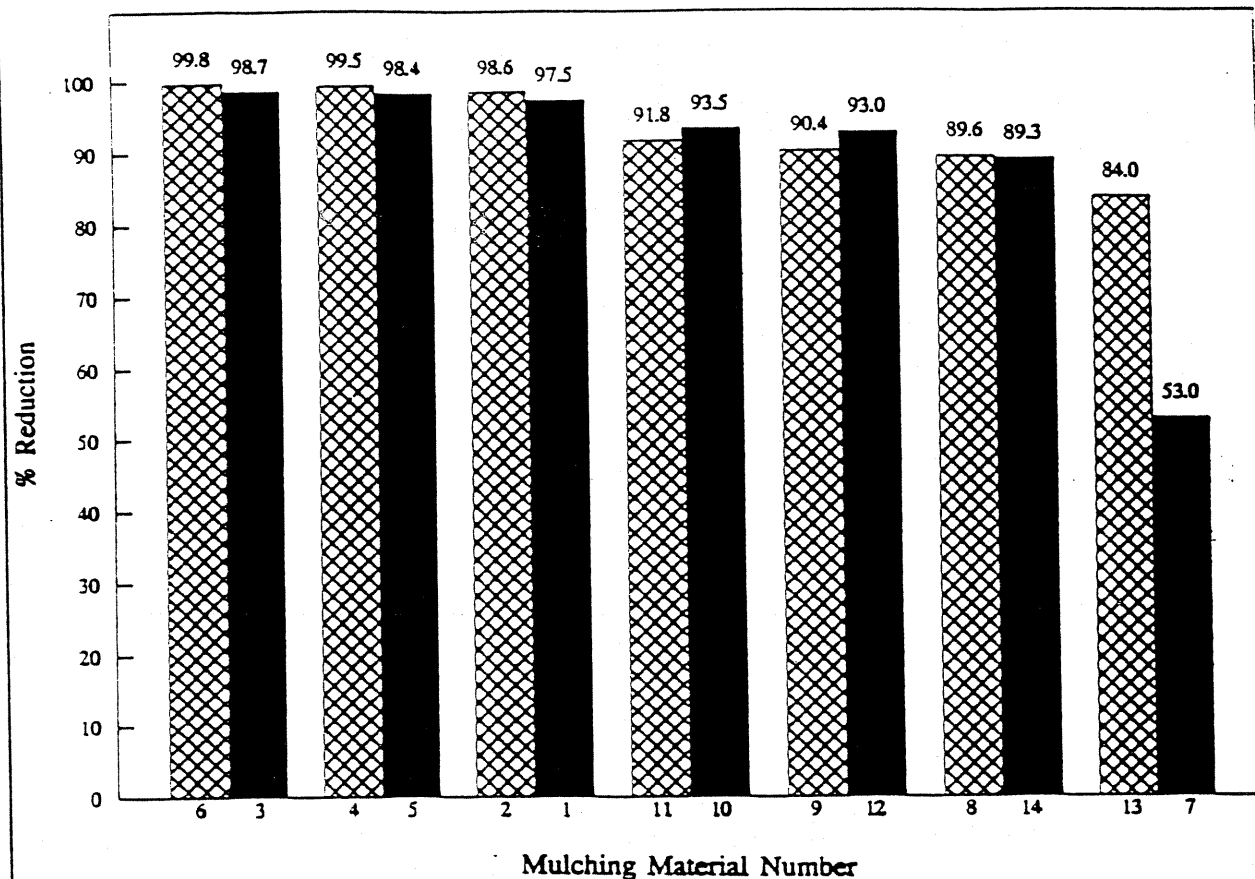


## Mulch Material

## Characteristics

|    |                                     |
|----|-------------------------------------|
| 1  | 100% wheat straw/top net            |
| 2  | 100% wheat straw/two nets           |
| 3  | 70% wheat straw/30% coconut fiber   |
| 4  | 70% wheat straw/30% coconut fiber   |
| 5  | 100% coconut fiber                  |
| 6  | Nylon monofilament/two nets         |
| 7  | Nylon monofilament/rigid/bonded     |
| 8  | Vinyl monofilament/flexible/bonded  |
| 9  | Curled wood fibers/top net          |
| 10 | Curled wood fibers/two nets         |
| 11 | Antiwash netting (jute)             |
| 12 | Interwoven paper and thread         |
| 13 | Uncrimped wheat straw - 2,242 kg/ha |
| 14 | Uncrimped wheat straw - 4,484 kg/ha |

Figure 4-5. Water velocity reductions for different mulch treatments (adapted from Harding, 1990).



## Mulch Material

## Characteristics

- |    |                                     |
|----|-------------------------------------|
| 1  | 100% wheat straw/top net            |
| 2  | 100% wheat straw/two nets           |
| 3  | 70% wheat straw/30% coconut fiber   |
| 4  | 70% wheat straw/30% coconut fiber   |
| 5  | 100% coconut fiber                  |
| 6  | Nylon monofilament/two nets         |
| 7  | Nylon monofilament/rigid/bonded     |
| 8  | Vinyl monofilament/flexible/bonded  |
| 9  | Curled wood fibers/top net          |
| 10 | Curled wood fibers/two nets         |
| 11 | Antiwash netting (jute)             |
| 12 | Interwoven paper and thread         |
| 13 | Uncrimped wheat straw – 2,242 kg/ha |
| 14 | Uncrimped wheat straw – 4,484 kg/ha |

Figure 4-6. Actual soil loss reductions for different mulch treatments (adapted from Harding, 1990).

**r. Use sodding.**

Sodding permanently stabilizes an area. Sodding provides immediate stabilization of an area and should be used in critical areas or where establishment of permanent vegetation by seeding and mulching would be difficult. Sodding is also a preferred option when there is a high erosion potential during the period of vegetative establishment from seeding.

**s. Use wildflower cover.**

Because of the hardy drought-resistant nature of wildflowers, they may be more beneficial as an erosion control practice than turf grass. While not as dense as turfgrass, wildflower thatches and associated grasses are expected to be as effective in erosion control and contaminant absorption. Because thatches of wildflowers do not need fertilizers, pesticides, or herbicides, and watering is minimal, implementation of this practice may result in a cost savings (Brash et al., undated). In 1987, Howard County, Maryland, spent \$690.00 per acre to maintain turfgrass areas, compared to only \$31.00 per acre for wildflower meadows (Wilson, 1990).

A wildflower stand requires several years to become established; maintenance requirements are minimal once the area is established (Brash et al., undated).

## 5. Sediment Control Practices<sup>4</sup>

As discussed more fully at the beginning of this chapter and in Chapter 1, the following practices are described for illustrative purposes only. State programs need not require implementation of these practices. However, as a practical matter, EPA anticipates that the management measure set forth above generally will be implemented by applying one or more management practices appropriate to the source, location, and climate. The practices set forth below have been found by EPA to be representative of the types of practices that can be applied successfully to achieve the management measure described above.

Sediment controls capture sediment that is transported in runoff. Filtration and detention (gravitational settling) are the main processes used to remove sediment from urban runoff.

**a. Sediment Basins**

Sediment basins, also known as silt basins, are engineered impoundment structures that allow sediment to settle out of the urban runoff. They are installed prior to full-scale grading and remain in place until the disturbed portions of the drainage area are fully stabilized. They are generally located at the low point of sites, away from construction traffic, where they will be able to trap sediment-laden runoff.

Sediment basins are typically used for drainage areas between 5 and 100 acres. They can be classified as either temporary or permanent structures, depending on the length of service of the structure. If they are designed to function for less than 36 months, they are classified as "temporary"; otherwise, they are considered permanent structures. Temporary sediment basins can also be converted into permanent urban runoff management ponds. When sediment basins are designed as permanent structures, they must meet all standards for wet ponds.

**b. Sediment Trap**

Sediment traps are small impoundments that allow sediment to settle out of runoff water. Sediment traps are typically installed in a drainageway or other point of discharge from a disturbed area. Temporary diversions can be

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<sup>4</sup>Adapted from Goldman (1986).

used to direct runoff to the sediment trap. Sediment traps should not be used for drainage areas greater than 5 acres and typically have a useful life of approximately 18 to 24 months.

#### **c. Filter Fabric Fence**

Filter fabric fence is available from many manufacturers and in several mesh sizes. Sediment is filtered out as urban runoff flows through the fabric. Such fences should be used only where there is sheet flow (i.e., no concentrated flow), and the maximum drainage area to the fence should be 0.5 acre or less per 100 feet of fence. Filter fabric fences have a useful life of approximately 6 to 12 months.

#### **d. Straw Bale Barrier**

A straw bale barrier is a row of anchored straw bales that detain and filter urban runoff. Straw bales are less effective than filter fabric, which can usually be used in place of straw bales. However, straw bales have been effectively used as temporary check dams in channels. As with filter fabric fences, straw bale barriers should be used only where there is sheet flow. The maximum drainage area to the barrier should be 0.25 acre or less per 100 feet of barrier. The useful life of straw bales is approximately 3 months.

#### **e. Inlet Protection**

Inlet protection consists of a barrier placed around a storm drain drop inlet, which traps sediment before it enters the storm sewer system. Filter fabric, straw bales, gravel, or sand bags are often used for inlet protection.

#### **f. Construction Entrance**

A construction entrance is a pad of gravel over filter cloth located where traffic leaves a construction site. As vehicles drive over the gravel, mud, and sediment are collected from the vehicles' wheels and offsite transport of sediment is reduced.

#### **g. Vegetated Filter Strips**

Vegetated filter strips are low-gradient vegetated areas that filter overland sheet flow. Runoff must be evenly distributed across the filter strip. Channelized flows decrease the effectiveness of filter strips. Level spreading devices are often used to distribute the runoff evenly across the strip (Dillaha et al., 1989).

Vegetated filter strips should have relatively low slopes and adequate length and should be planted with erosion-resistant plant species. The main factors that influence the removal efficiency are the vegetation type, soil infiltration rate, and flow depth and travel time. These factors are dependent on the contributing drainage area, slope of strip, degree and type of vegetative cover, and strip length. Maintenance requirements for vegetated filter strips include sediment removal and inspections to ensure that dense, vigorous vegetation is established and concentrated flows do not occur. Maintenance of these structures is discussed in Section II.A of this chapter.

## **6. Effectiveness and Cost Information**

#### **a. Erosion Control Practices**

The effectiveness of erosion control practices can vary based on land slope, the size of the disturbed area, rainfall frequency and intensity, wind conditions, soil type, use of heavy machinery, length of time soils are exposed and unprotected, and other factors. In general, a system of erosion and sediment control practices can more effectively reduce offsite sediment transport than can a single system. Numerous nonstructural measures such as protecting natural or newly planted vegetation, minimizing the disturbance of vegetation on steep slopes and other highly

erodible areas, maximizing the distance eroded material must travel before reaching the drainage system, and locating roads away from sensitive areas may be used to reduce erosion.

Table 4-15 contains the available cost and effectiveness data for some of the erosion controls listed above. Information on the effectiveness of individual nonstructural controls was not available. All reported effectiveness data assume that controls are properly designed, constructed, and maintained. Costs have been broken down into annual capital costs, annual maintenance costs, and total annual costs (including annualization of the capital costs).

#### **b. Sediment Control Practices**

Regular inspection and maintenance are needed for most erosion control practices to remain effective. The effectiveness of sediment controls will depend on the size of the construction site and the nature of the runoff flows. Sediment basins are most appropriate for drainage areas of 5 acres or greater. In smaller areas with concentrated flows, silt traps may suffice. Where concentrated flow leaves the site and the drainage area is less than 0.5 ac/100 ft of flow, filter fabric fences may be effective. In areas where sheet flow leaves the site and the drainage area is greater than 0.5 acre/100 ft of flow, perimeter dikes may be used to divert the flow to a sediment trap or sediment basin. Urban runoff inlets may be protected using straw bales or diversions to filter or route runoff away from the inlets.

Table 4-16 describes the general cost and effectiveness of some common sediment control practices.

#### **c. Comparisons**

Figure 4-7 illustrates the estimated TSS loading reductions from Maryland construction sites possible using a combination of erosion and sediment controls in contrast to using only sediment controls. Figure 4-8 shows a comparison of the cost and effectiveness of various erosion control practices. As can be seen in Figure 4-8, seeding or seeding and mulching provide the highest levels of control at the lowest cost.

Table 4-15. ESC Quantitative Effectiveness and Cost Summary

| Practice       | Design Constraints or Purpose   | Percent Removal of TSS  | Useful Life (years) <sup>a</sup> | Construction Cost  | Annual Maintenance Cost (as % construction cost)  | Total Annual Cost                              |
|----------------|---|---|----------------------------------|--|---|--|
| Sod            | Immediate erosion protection where there is high erosion potential during vegetative establishment. | Average: 99%<br>Observed range: 98% - 99%<br>References: Minnesota Pollution Control Agency, 1989; Pennsylvania, 1983 cited in USEPA, 1991  | 2                                | Average: \$0.2 per ft <sup>2</sup><br>[\$11,300 per acre]<br>Range: \$0.1 - \$1.1<br>References: SWRPC, 1991; Schueler, 1987; Virginia, 1980                                 | Average: 5%<br>Range: 5%<br>Reference: SWRPC, 1991  | \$0.20 per ft <sup>2</sup><br>\$7,500 per acre |
| Seed           | Establish vegetation on disturbed area.   | After vegetation established-<br>Average: 90%<br>Observed range: 50% - 100%<br>References: SCS, 1985 cited in EPA, 1991; Minnesota Pollution Control Agency, 1989; Oberts, 1984 cited in City of Austin, 1988; Delaware Department of Natural Resources, 1989 | 2                                | Average: \$400 per acre<br>Range: \$200 - \$1000 per acre<br>References: Wisconsin DOT cited in SWRPC, 1991; SWRPC, 1991; Goldman, 1986; Virginia, 1980                      | Average: 20%<br>Range: 15% - 25%<br>References: Wisconsin DOT cited in SWRPC, 1991; SWRPC, 1991 | \$300 per acre                                 |
| Seed and Mulch | Establish vegetation on disturbed area.   | After vegetation established-<br>Average: 90%<br>Observed range: 50% - 100%<br>References: SCS, 1985 cited in EPA, 1991; Minnesota Pollution Control Agency, 1989; Oberts, 1984 cited in City of Austin, 1988; Delaware Department of Natural Resources, 1989 | 2                                | Average: \$1,500 per acre<br>Range: \$800 - \$3,500 per acre<br>References: Goldman, 1986; Washington DOT, 1990; NC State, 1990; Schueler, 1987; Virginia, 1980; SWRPC, 1991 | Average: NA <sup>b</sup><br>Range: NA<br>References: None                                       | \$1,100 per acre                               |

Table 4-15. (Continued)

| Practice | Design Constraints or Purpose              | Percent Removal of TSS   | Useful Life (years) <sup>a</sup>  | Construction Cost  | Annual Maintenance Cost (as % construction cost)          | Total Annual Cost  |
|----------|--|--|---|--|---|--|
| Mulch    | Temporary stabilization of disturbed area. | Observed range:  | Straw mulch: 0.25   | Straw mulch:<br>Average: \$1,700 per acre<br>Range: \$500 - \$5,000 per acre<br>References: Wisconsin DOT cited in SWRPC, 1991; Washington DOT, 1990; Virginia, 1980   | Average: NA <sup>b</sup><br>Range: NA<br>References: None | Straw mulch:<br>\$7,500 per acre   |
|          | sand:                                      | 20% slope<br>wood fiber @ 1500 lb/ac 50-60%<br>wood fiber @ 3000 lb/ac 50-85%<br>straw @ 3000 lb/ac 90-100%  | 50% slope<br>0-20%<br>50-70%<br>95%   |  |   |  |
|          | <u>Silt-loam:</u>                          | 20% slope<br>wood fiber @ 1500 lb/ac 20-60%<br>wood fiber @ 3000 lb/ac 60-90%<br>straw @ 3000 lb/ac 80-95%   | Wood fiber mulch:<br>40-60%<br>60-70%<br>70-90%                                   | Wood fiber mulch:<br>Average: \$1,000 per acre<br>Range: \$100 - \$2,300 per acre<br>References: Washington DOT, 1990; Virginia, 1980  |   | Wood fiber mulch:<br>\$3,500 per acre  |
|          | <u>Silt-clay-loam:</u>                     | 10-30%<br>slope<br>wood fiber @ 1500 lb/ac 5%<br>wood fiber @ 3000 lb/ac 40%<br>jute netting 30-60%<br>straw @ 3000 lb/ac 40-70%<br>wood chips 60-80%<br>@ 10,000 lb/ac<br>mulch blanket 60-80%<br>excelsior blanket 60-80%<br>multiple treatment (straw and jute) 90% | 30-50%<br>slope<br>--<br>--<br>30%<br>20-40%<br>50-60%<br>50-60%<br>50-60%<br>90% | Jute netting:<br>Average: \$3,700 per acre<br>Range: \$3,500-\$4,100 per acre<br>References: Washington DOT, 1990; Virginia, 1980<br><br>Straw and jute:<br>Average: \$5,400 per acre<br>Range: \$4,000-\$9,100 per acre<br>References: Washington DOT, 1990; Virginia, 1980 |   | Jute netting:<br>\$12,500 per acre<br><br><br><br><br><br><br>Straw and jute:<br>\$18,000 per acre |

References: Minnesota Pollution Control Agency, 1989; Kay, 1983 cited in Goldman, 1986



Table 4-15. (Continued)

| Practice             | Design Constraints or Purpose              | Percent Removal of TSS  | Useful Life (years) <sup>a</sup> | Construction Cost   | Annual Maintenance Cost (as % construction cost)     | Total Annual Cost        |
|----------------------|--|---|----------------------------------|---|--|--------------------------|
| Terraces             | Break up long or steep slopes.             | Observed range:<br><br>Land Slope<br>1-12%<br>12-18%<br>18-24%  | 2                                | Average: \$5 per lin ft<br>Range: \$1 - \$12<br>References: SWRPC, 1991;<br>Goldman, 1986; Virginia, 1991 | Average: 20%<br>Range: 20%<br>Reference: SWRPC, 1991 | \$4 per lin ft           |
| All Erosion Controls | Reduce amount of sediment entering runoff. | Reduction in Erosion<br>70%<br>60%<br>55%<br><br>Additionally, if the slope steepness is halved, while other factors are held constant, the soil loss potential decreases 2-1/2 times. If both the slope and length are halved, the soil loss potential is decreased 4 times.<br>References: Goldman, 1986; Beasley, 1972 | --                               | Varies but typically low  | Varies but typically low                             | Varies but typically low |

NA - Not available.

<sup>a</sup> Useful life estimated as length of construction project (assumed to be 2 years).<sup>b</sup> For Total Annual Cost, assume Annual Maintenance Cost = 2% of construction cost.

Table 4-16. ESC Quantitative Effectiveness and Cost Summary for Sediment Control Practices

| Practice            | Design Constraints or Purpose  | Percent Removal of TSS   | Useful Life (years) <sup>a</sup> | Construction Cost   | Annual Maintenance Cost (as % construction cost)                                       | Total Annual Cost   |
|---------------------|--|--|----------------------------------|---|--|---|
| Sediment basin      | Minimum drainage area = 5 acres, maximum drainage area = 100 acres                                 | Average: 70%<br>Observed range: 55% - 100%<br>References: Schueler, 1990; Engle, BW and Jarrett, AR, 1990; Baumann, 1990   | 2                                | Less than 50,000 ft <sup>3</sup> storage<br>Average: \$0.60 per ft <sup>3</sup> storage<br>(\$1,100 per drainage acre <sup>c</sup> )<br>Range: \$0.20 - \$1.30 per ft <sup>3</sup>                                | Average: 25%<br>Range: 25%<br>References: Denver COG cited in SWRPC, 1991; SWRPC, 1991 | Less than 50,000 ft <sup>3</sup> storage<br>\$0.40 per ft <sup>3</sup> storage<br>\$700 per drainage acre <sup>b</sup>    |
|                     |  |  |                                  | Greater than 50,000 ft <sup>3</sup> storage<br>Average: \$0.3 per ft <sup>3</sup> storage<br>(\$550 per drainage acre <sup>c</sup> )<br>Range: \$0.10 - \$0.40 per ft <sup>3</sup><br>References: SWRPC, 1991     |  | Greater than 50,000 ft <sup>3</sup> storage<br>\$0.20 per ft <sup>3</sup> storage<br>\$900 per drainage acre <sup>c</sup> |
| Sediment trap       | Maximum drainage area = 5 acres  | Average: 60%<br>Observed range: (-7%) - 100%<br>References: Schueler, et al., 1990; Tahoe Regional Planning Agency, 1989; Baumann, 1990  | 1.5                              | Average: \$0.60 per ft <sup>3</sup> storage<br>(\$1,100 per drainage acre <sup>c</sup> )<br>Range: \$0.20 - \$2.00 per ft <sup>3</sup><br>References: Denver COG cited in SWRPC, 1991; SWRPC, 1991; Goldman, 1986 | Average: 20%<br>Range: 20%<br>References: Denver COG cited in SWRPC, 1991; SWRPC, 1991 | 0.70 per ft <sup>3</sup> storage<br>\$1,300 per drainage acre <sup>c</sup>  |
|                     |  |  |                                  |   |  |   |
| Filter Fabric Fence | Maximum drainage area = 0.5 acre per 100 feet of fence. Not to be used in concentrated flow areas. | Average: 70%<br>Observed range: 0% - 100% sand: 80% - 99% silt-loam: 50% - 80% silt-clay-loam: 0% - 20%<br>References: Munson, 1991; Fisher et al., 1984; Minnesota Pollution Control Agency, 1989 | 0.5                              | Average: \$3 per lin ft (\$700 per drainage acre <sup>c</sup> )<br>Range: \$1 - \$8 per lin ft<br>References: Wisconsin DOT cited in SWRPC, 1991; SWRPC, 1991; Goldman, 1986; Virginia, 1991; NC State, 1990      | Average: 100%<br>Range: 100%<br>References: SWRPC, 1991                                | \$7 per lin ft<br>\$850 per drainage acre <sup>c</sup>  |

Table 4-16. (Continued)

| Practice              | Design Constraints or Purpose   | Percent Removal of TSS   | Useful Life (years) <sup>a</sup> | Construction Cost   | Annual Maintenance Cost (as % construction cost)  | Total Annual Cost   |
|-----------------------|---|--|----------------------------------|---|---|---|
| Straw Bale Barrier    | Maximum drainage area = 0.25 acre per 100 feet of barrier. Not to be used in concentrated flow areas. | Average: 70%<br>Observed Range: 70%<br>References: Virginia, 1980 cited in EPA, 1991 | 0.25                             | Average: \$4 per lin ft (\$1,600 per drainage acre <sup>d</sup> )<br>Range: \$2 - \$6 per lin ft<br>References: Goldman, 1986; Virginia, 1991         | Average: 100%<br>Range: 100%<br>References: SWRPC, 1991                                       | \$17 per lin ft<br>\$6,800 per drainage acre <sup>d</sup> |
| Inlet Protection      | Protect storm drain inlet.  | Average: NA<br>Observed Range: NA<br>References: None                                | 1                                | Average: \$100 per inlet<br>Range: \$50 - \$150<br>References: SWRPC, 1991; Denver COG cited in SWRPC, 1991; Virginia, 1991; EPA cited in SWRPC, 1991 | Average: 60%<br>Range: 20% - 100%<br>References: SWRPC, 1991; Denver COG cited in SWRPC, 1991 | \$150 per inlet   |
| Construction Entrance | Removes sediment from vehicles wheels.  | Average: NA<br>Observed Range: NA<br>References: None                                | 2                                | Average: \$2,000 each<br>Range: \$1,000 - \$4,000<br>References: Goldman, 1986; NC State, 1990  | Average: NA <sup>e</sup><br>Range: NA<br>References: None                                     | \$1,500 each  |
|                       |   |  |                                  | With washrack:<br>Average: \$3,000 each<br>Range: \$1,000 - \$5,000<br>References: Virginia, 1991   |   | \$2,200 each  |

Table 4-16. (Continued)

| Practice                | Design Constraints or Purpose | Percent Removal of TSS  | Useful Life (years) <sup>a</sup> | Construction Cost  | Annual Maintenance Cost (as % construction cost)      | Total Annual Cost |
|-------------------------|-------------------------------|---|----------------------------------|--|---|-------------------|
| Vegetative Filter Strip | Must have sheet flow.         | <p>Average: 70%<br/>Observed Range: 20% - 80%<br/>References: Hayes and Halrston, 1983 cited in Casman, 1990; Dillaha et al., 1989, cited in Glick et al., 1991; Virginia Department of Conservation, 1987; Nonpoint Source Control Task Force, 1983 cited in Minnesota PCA, 1989; Schueler, 1987</p> | 2                                | <p>Established from existing vegetation-<br/>Average: \$0<br/>Range: \$0<br/>References: Schueler, 1987</p> <p>Established from sod-<br/>Average: \$11,300 per acre<br/>Range: \$4,500 - \$48,000 per acre<br/>References: Schueler, 1987; SWRPC, 1991</p> | <p>Average: NA<br/>Range: NA<br/>References: None</p> | NA                |

NA - Not available.

<sup>a</sup> Useful life estimated as length of construction project (assumed to be 2 years)

<sup>b</sup> For Total Annual Cost, assume Annual Maintenance Cost=20% of construction cost.

<sup>c</sup> Assumes trap volume = 1800 c/acre (0.5 inches runoff per acre).

<sup>d</sup> Assumes drainage area of 0.5 acre per 100 feet of fence (maximum allowed).

<sup>e</sup> Assumes drainage area of 0.25 acre per 100 feet of barrier (maximum allowed).

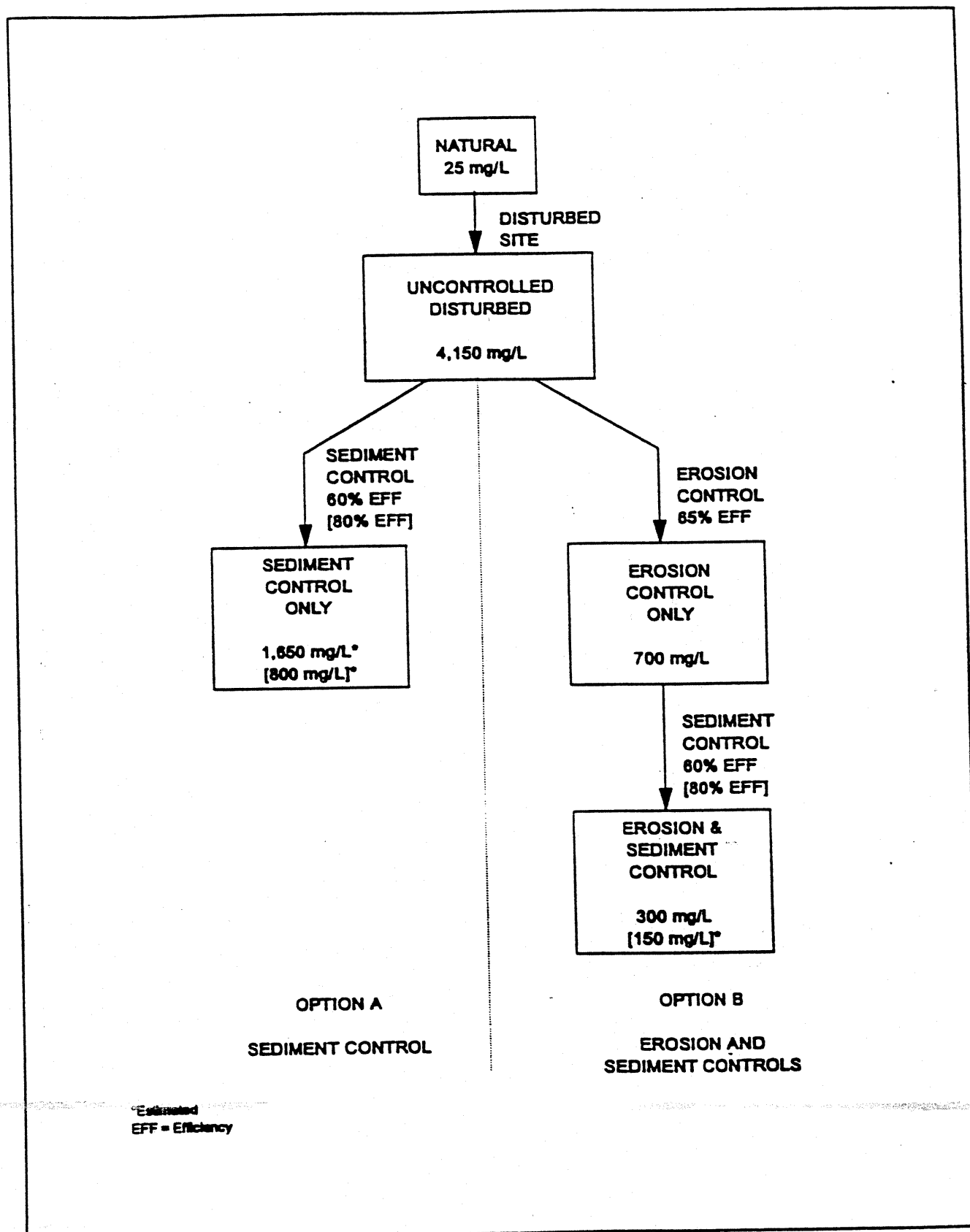


Figure 4-7. TSS concentrations from Maryland construction sites (Schueler, 1987).

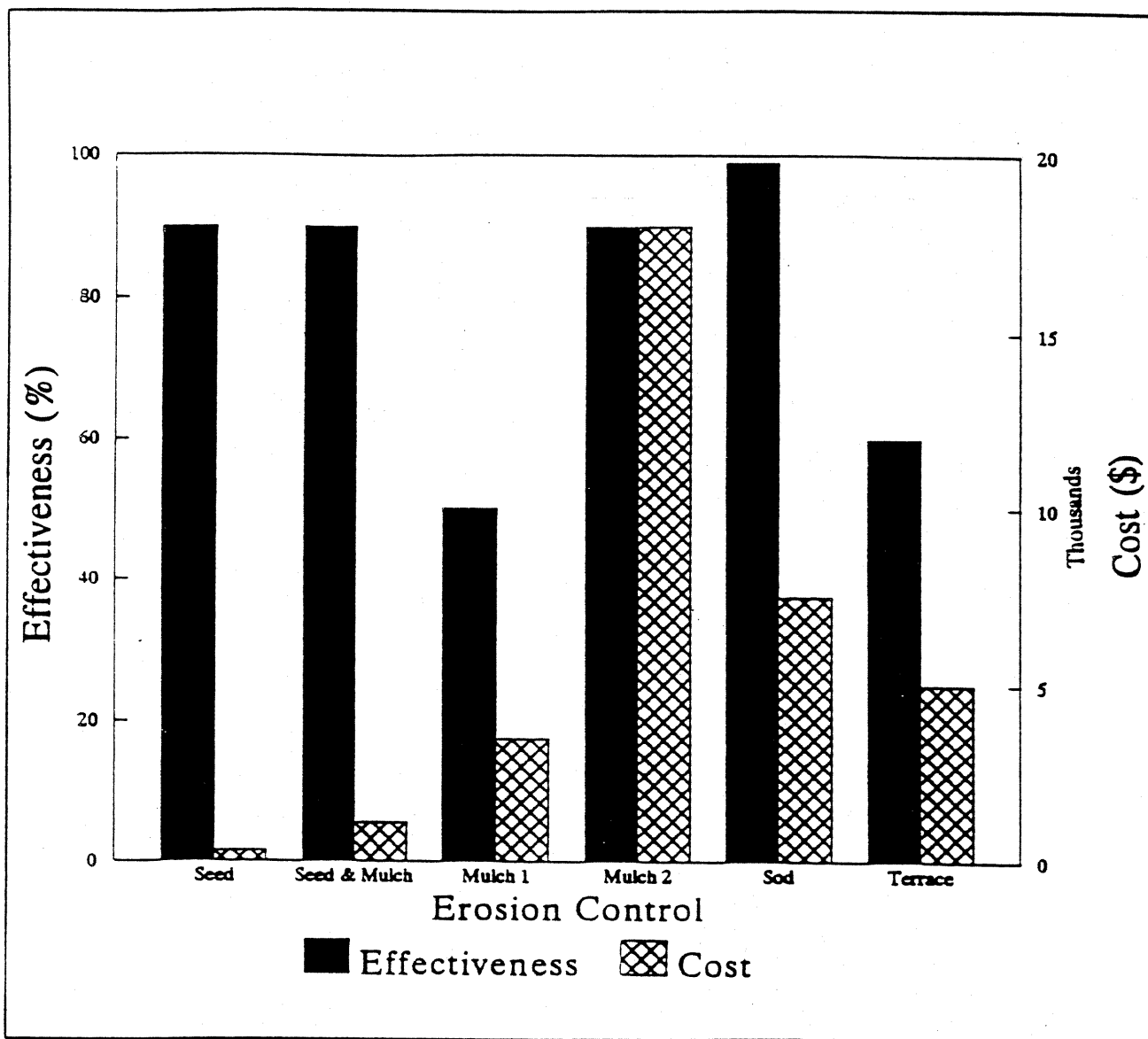


Figure 4-8. Comparison of cost and effectiveness for erosion control practices (based on information in Tables 4-15 and 4-16).

## B. Construction Site Chemical Control Management Measure

- (1) Limit application, generation, and migration of toxic substances;
- (2) Ensure the proper storage and disposal of toxic materials; and
- (3) Apply nutrients at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface waters.

### 1. Applicability

This management measure is intended to be applied by States to all construction sites less than 5 acres in area and to new, resurfaced, restored, and reconstructed road, highway, and bridge construction projects. This management measure does not apply to: (1) construction of a detached single family home on a site of 1/2 acre or more or (2) construction that does not disturb over 5,000 square feet of land on a site. (NOTE: All construction activities, including clearing, grading, and excavation, that result in the disturbance of areas greater than or equal to 5 acres or are a part of a larger development plan are covered by the NPDES regulations and are thus excluded from these requirements.) Under the Coastal Zone Act Reauthorization Amendments of 1990, States are subject to a number of requirements as they develop coastal NPS programs in conformance with this management measure and will have flexibility in doing so. The application of management measures by States is described more fully in *Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance*, published jointly by the U.S. Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce.

### 2. Description

The purpose of this management measure is to prevent the generation of nonpoint source pollution from construction sites due to improper handling and usage of nutrients and toxic substances, and to prevent the movement of toxic substances from the construction site.

Many potential pollutants other than sediment are associated with construction activities. These pollutants include pesticides (insecticides, fungicides, herbicides, and rodenticides); fertilizers used for vegetative stabilization; petrochemicals (oils, gasoline, and asphalt degreasers); construction chemicals such as concrete products, sealers, and paints; wash water associated with these products; paper; wood; garbage; and sanitary wastes (Washington State Department of Ecology, 1991).

The variety of pollutants present and the severity of their effects are dependent on a number of factors:

- (1) **The nature of the construction activity.** For example, potential pollution associated with fertilizer usage may be greater along a highway or at a housing development than it would be at a shopping center development because highways and housing developments usually have greater landscaping requirements.
- (2) **The physical characteristics of the construction site.** The majority of all pollutants generated at construction sites are carried to surface waters via runoff. Therefore, the factors affecting runoff volume,

such as the amount, intensity, and frequency of rainfall; soil infiltration rates; surface roughness; slope length and steepness; and area denuded, all contribute to pollutant loadings.

- (3) **The proximity of surface waters to the nonpoint pollutant source.** As the distance separating pollutant-generating activities from surface waters decreases, the likelihood of water quality impacts increases.

#### **a. Pesticides**

Insecticides, rodenticides, and herbicides are used on construction sites to provide safe and healthy conditions, reduce maintenance and fire hazards, and curb weeds and woody plants. Rodenticides are also used to control rodents attracted to construction sites. Common insecticides employed include synthetic, relatively water-insoluble chlorinated hydrocarbons, organophosphates, carbamates, and pyrethrins.

#### **b. Petroleum Products**

Petroleum products used during construction include fuels and lubricants for vehicles, for power tools, and for general equipment maintenance. Specific petroleum pollutants include gasoline, diesel oil, kerosene, lubricating oils, and grease. Asphalt paving also can be particularly harmful since it releases various oils for a considerable time period after application. Asphalt overloads might be dumped and covered without inspection. However, many of these pollutants adhere to soil particles and other surfaces and can therefore be more easily controlled.

#### **c. Nutrients**

Fertilizers are used on construction sites when revegetating graded or disturbed areas. Fertilizers contain nitrogen and phosphorus, which in large doses can adversely affect surface waters, causing eutrophication.

#### **d. Solid Wastes**

Solid wastes on construction sites are generated from trees and shrubs removed during land clearing and structure installation. Other wastes include wood and paper from packaging and building materials, scrap metals, sanitary wastes, rubber, plastic and glass, and masonry and asphalt products. Food containers, cigarette packages, leftover food, and aluminum foil also contribute solid wastes to the construction site.

#### **e. Construction Chemicals**

Chemical pollutants, such as paints, acids for cleaning masonry surfaces, cleaning solvents, asphalt products, soil additives used for stabilization, and concrete-curing compounds, may also be used on construction sites and carried in runoff.

#### **f. Other Pollutants**

Other pollutants, such as wash water from concrete mixers, acid and alkaline solutions from exposed soil or rock, and alkaline-forming natural elements, may also be present and contribute to nonpoint source pollution.

Revegetation of disturbed areas may require the use of fertilizers and pesticides, which, if not applied properly, may become nonpoint source pollutants. Many pesticides are restricted by Federal and/or State regulations.

Hydroseeding operations, in which seed, fertilizers, and lime are applied to the ground surface in a one-step operation, are more conducive to nutrient pollution than are the conventional seedbed-preparation operations, in which fertilizers and lime are tilled into the soil. Use of fertilizers containing little or no phosphorus may be required by



local authorities if the development is near sensitive waterbodies. The addition of lime can also affect the pH of sensitive waters, making them more alkaline.

Improper fueling and servicing of vehicles can lead to significant quantities of petroleum products being dumped onto the ground. These pollutants can then be washed off site in urban runoff, even when proper erosion and sediment controls are in place. Pollutants carried in solution in runoff water, or fixed with sediment crystalline structures, may not be adequately controlled by erosion and sediment control practices (Washington Department of Ecology, 1991). Oils, waxes, and water-insoluble pesticides can form surface films on water and solid particles. Oil films can also concentrate water-soluble insecticides. These pollutants can be nearly impossible to control once present in runoff other than by the use of very costly water-treatment facilities (Washington Department of Ecology, 1991).

After spill prevention, one of the best methods to control petroleum pollutants is to retain sediments containing oil on the construction site through use of erosion and sediment control practices. Improved maintenance and safe storage facilities will reduce the chance of contaminating a construction site. One of the greatest concerns related to use of petroleum products is the method for waste disposal. The dumping of petroleum product wastes into sewers and other drainage channels is illegal and could result in fines or job shutdown.

The primary control method for solid wastes is to provide adequate disposal facilities. Erosion and sediment control structures usually capture much of the solid waste from construction sites. Periodic removal of litter from these structures will reduce solid waste accumulations. Collected solid waste should be removed and disposed of at authorized disposal areas.

Improperly stored construction materials, such as pressure-treated lumber or solvents, may lead to leaching of toxics to surface water and ground water. Disposal of construction chemicals should follow all applicable State and local laws that may require disposal by a licensed waste management firm.

### 3. Management Measure Selection

This management measure was selected based on the potential for many construction activities to contribute to nutrient and toxic NPS pollution.

This management measure was selected because (1) construction activities have the potential to contribute to increased loadings of toxic substances and nutrients to waterbodies; (2) various States and local governments regulate the control of chemicals on construction sites through spill prevention plans, erosion and sediment control plans, or other administrative devices; (3) the practices described are commonly used and presented in a number of best management practice handbooks and guidance manuals for construction sites; and (4) the practices selected are the most economical and effective.

### 4. Practices

As discussed more fully at the beginning of this chapter and in Chapter 1, the following practices are described for illustrative purposes only. State programs need not require implementation of these practices. However, as a practical matter, EPA anticipates that the management measure set forth above generally will be implemented by applying one or more management practices appropriate to the source, location, and climate. The practices set forth below have been found by EPA to be representative of the types of practices that can be applied successfully to achieve the management measure described above.

#### ■ a. Properly store, handle, apply, and dispose of pesticides.

Pesticide storage areas on construction sites should be protected from the elements. Warning signs should be placed in areas recently sprayed or treated. Persons mixing and applying these chemicals should wear suitable protective clothing, in accordance with the law.

Application rates should conform to registered label directions. Disposal of excess pesticides and pesticide-related wastes should conform to registered label directions for the disposal and storage of pesticides and pesticide containers set forth in applicable Federal, State, and local regulations that govern their usage, handling, storage, and disposal. Pesticides and herbicides should be used only in conjunction with Integrated Pest Management (IPM) (see Chapter 2). Pesticides should be the tool of last resort; methods that are the least disruptive to the environment and human health should be used first.

Pesticides should be disposed of through either a licensed waste management firm or a treatment, storage, and disposal (TSD) facility. Containers should be triple-rinsed before disposal, and rinse waters should be reused as product.

Other practices include setting aside a locked storage area, tightly closing lids, storing in a cool, dry place, checking containers periodically for leaks or deterioration, maintaining a list of products in storage, using plastic sheeting to line the storage area, and notifying neighboring property owners prior to spraying.

**b. *Property store, handle, use, and dispose of petroleum products.***

When storing petroleum products, follow these guidelines:

- Create a shelter around the area with cover and wind protection;
- Line the storage area with a double layer of plastic sheeting or similar material;
- Create an impervious berm around the perimeter with a capacity 110 percent greater than that of the largest container;
- Clearly label all products;
- Keep tanks off the ground; and
- Keep lids securely fastened.

Oil and oily wastes such as crankcase oil, cans, rags, and paper dropped into oils and lubricants should be disposed of in proper receptacles or recycled. Waste oil for recycling should not be mixed with degreasers, solvents, antifreeze, or brake fluid.

**c. *Establish fuel and vehicle maintenance staging areas located away from all drainage courses, and design these areas to control runoff.***

Proper maintenance of equipment and installation of proper stream crossings will further reduce pollution of water by these sources. Stream crossings should be minimized through proper planning of access roads. Refer to Chapter 3 for additional information on stream crossings.

**d. *Provide sanitary facilities for constructions workers.***

**e. *Store, cover, and isolate construction materials, including topsoil and chemicals, to prevent runoff of pollutants and contamination of ground water.***

**f. *Develop and implement a spill prevention and control plan. Agencies, contractors, and other commercial entities that store, handle, or transport fuel, oil, or hazardous materials should develop a spill response plan.***

Post spill procedure information and have persons trained in spill handling on site or on call at all times. Materials for cleaning up spills should be kept on site and easily available. Spills should be cleaned up immediately and the contaminated material properly disposed of. Spill control plan components should include:

- Stop the source of the spill.
- Contain any liquid.
- Cover the spill with absorbent material such as kitty litter or sawdust, but do not use straw. Dispose of the used absorbent properly.

■ *g. Maintain and wash equipment and machinery in confined areas specifically designed to control runoff.*

Thinners or solvents should not be discharged into sanitary or storm sewer systems when cleaning machinery. Use alternative methods for cleaning larger equipment parts, such as high-pressure, high-temperature water washes, or steam cleaning. Equipment-washing detergents can be used, and wash water may be discharged into sanitary sewers if solids are removed from the solution first. (This practice should be verified with the local sewer authority.) Small parts can be cleaned with degreasing solvents, which can then be reused or recycled. Do not discharge any solvents into sewers.

Washout from concrete trucks should be disposed of into:

- A designated area that will later be backfilled;
- An area where the concrete wash can harden, can be broken up, and then can be placed in a dumpster; or
- A location not subject to urban runoff and more than 50 feet away from a storm drain, open ditch, or surface water.

Never dump washout into a sanitary sewer or storm drain, or onto soil or pavement that carries urban runoff.

■ *h. Develop and implement nutrient management plans.*

Properly time applications, and work fertilizers and liming materials into the soil to depths of 4 to 6 inches. Using soil tests to determine specific nutrient needs at the site can greatly decrease the amount of nutrients applied.

■ *i. Provide adequate disposal facilities for solid waste, including excess asphalt, produced during construction.*

■ *j. Educate construction workers about proper materials handling and spill response procedures. Distribute or post informational material regarding chemical control.*

# PLANNING SUBMITTAL REVIEW FORM

TITLE: Kahului Commercial Harbor Improvements

REVIEW DATE 9/9/04 REVIEWER EMB ID: Draft EA

BWS ID BWS MAP # ACREAGE: 50 acres PLANNER: Edward K Noda & Assoc, Inc; Ishi, Brian

TMK 3-7-01:21-2; 3-7-10:2, 3, 6, 13, 15, 21-2, 24, 26-8, 30, 32, 34; 3-7-08:2-4, 6 AGREEMENTS RE: THIS TMK?

PROJECT DESCRIPTION: Includes short-term projects recommended in the DOT-HAR Kahului Commercial Harbor 2025 Master Plan. The projects will maintain Harbor operations based on the existing and forecast maritime demands for cargo and passengers. The proposed short-term projects include the: pier 1 extension; pier 1 comfort stations and sewer line; pier 3 expansion; new pier 4; new pier 2C extension, including a passenger terminal (ca 10,000 sf), roadway, and bridge; structural pavement, access bridge, and utilities at "Puunene Yard".

|                | <u>CURRENT</u>   | <u>PROPOSED</u> |
|----------------|--|-----------------|
| SLUD           | Urban, Kanaha Pond: Conservation   |                 |
| CP DESIGNATION | Heavy Industrial   |                 |
| COUNTY ZONING  | Heavy Industrial   |                 |
| ACTUAL USE     | Piers 1-3, circulation roadways, DOT-HAR Office, maintenance building, and Spill Response Boat House and storage yards |                 |

| <u>NEAREST LINES</u> - DISTANCE | DIAMETER | MATERIAL | CAPACITY AT 10' PER SECOND |
|---------------------------------|----------|----------|----------------------------|
| N                               |          |          |                            |
| S                               |          |          |                            |
| E                               |          |          |                            |
| W                               |          |          |                            |

| <u>NEAREST HYDRANTS</u> - | DISTANCE | SIZE<br>TEE / MAIN | LAST FLOWCHECK<br>RESULTS DATE | LAST PRESSURE CHECK<br>RESULTS DATE |
|---------------------------|----------|--------------------|--------------------------------|-------------------------------------|
| N                         |          |                    |                                |                                     |
| S                         |          |                    |                                |                                     |
| E                         |          |                    |                                |                                     |
| W                         |          |                    |                                |                                     |

| <u>NEAREST STORAGE</u> | <u>DIRECTION</u> | <u>SIZE</u><br>3 MG | <u>NAME</u><br>Kahului | <u>MAP #</u> |
|------------------------|------------------|---------------------|------------------------|--------------|
|                        |                  |                     |                        |              |

REQUIRED STORAGE AMOUNT (state if by standards or flow calcs submitted)

| <u>ANTICIPATED CONSUMPTION INFO</u> | <u>REQUIRED FIRE FLOW</u> |
|-------------------------------------|---------------------------|
| PER/ACRE STANDARDS                  | BY STANDARDS              |
| PER/UNIT, PER/FT STANDS             | BY CALCS (METHOD)         |

BY CALCS (STATE METHOD)

CURRENT EMPIRICAL USE

AQUIFER UNDER PROJECT

IN WHPA or BUA?

| METER: | METER SIZE: | PREMID: | CUST ID: | CONSUMPTION:<br># OF UNITS/ SQUARE FEET (STATE WHICH) |
|--------|-------------|---------|----------|---|
|        |             |         |          |   |

AQUIFER SERVING PROJ (YLD) lao, 20 MGD

SYSTEM SERVING PROJ (AVL) Central

ELEVATION

SOILS

PLANT ZONE

POTENTIAL CONTAMINANTS

SF  
MF  
IND  
COMM  
OTHER  
CONDITIONS

COMMENTS

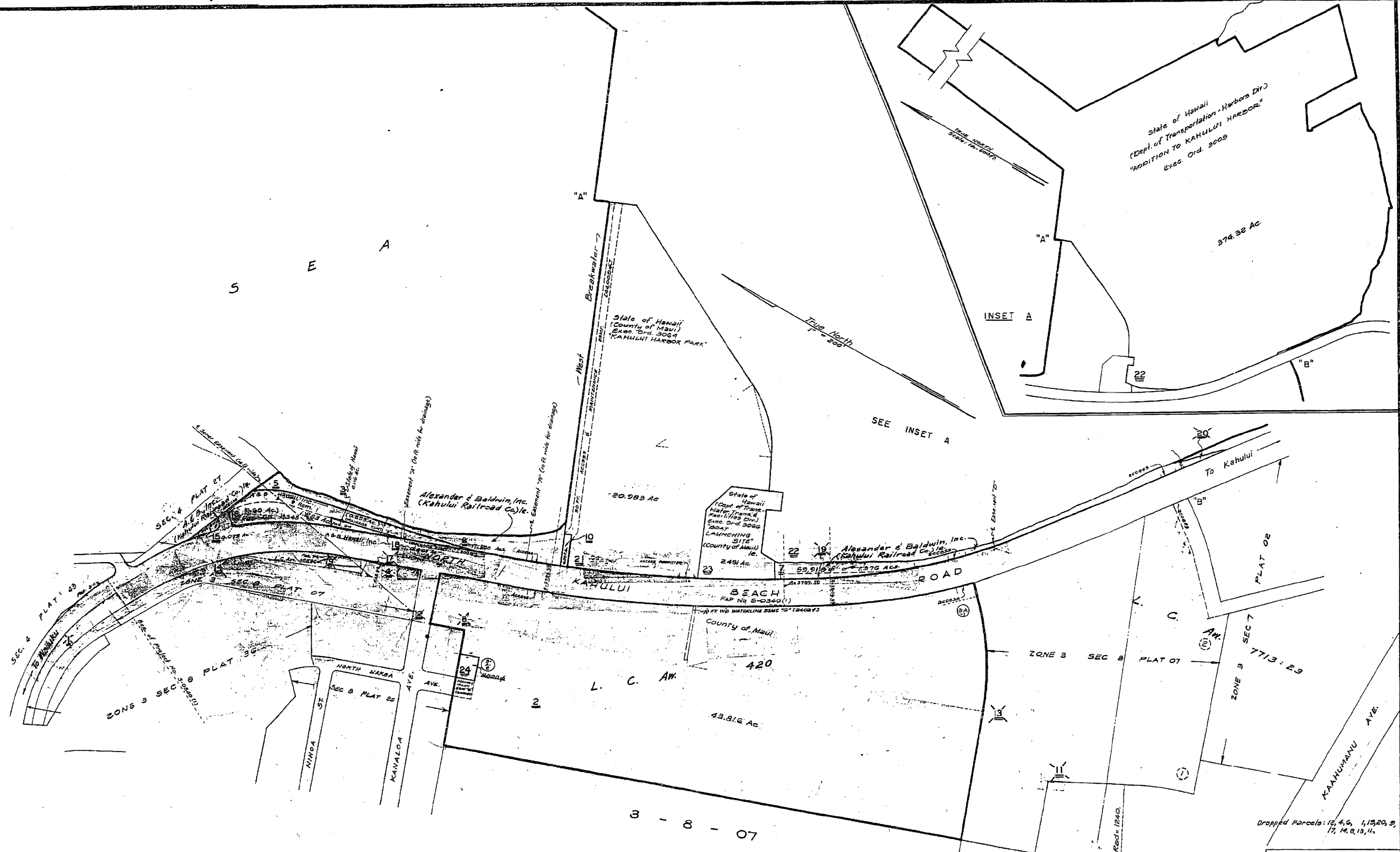
PLANNING COMMISSION ACTION

COUNCIL ACTION

OTHER FOLLOW-UP



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FEB 25 1968  
JUL 25 1969  
JUL 25 1970  
JUL 25 1971  
JUL 25 1972  
JUL 25 1973  
JUL 25 1974  
JUL 25 1975  
JUL 25 1976  
JUL 25 1977  
JUL 25 1978  
JUL 25 1979  
JUL 25 1980  
JUL 25 1981  
JUL 25 1982



Dwg No. 1849  
Source: Tax Maps Bureau  
By: H.N. Feb. 1937

PORT OF KAHULUI, MAUI.

| SECOND DIVISION        |      |      |
|------------------------|------|------|
| ZONE                   | SEC. | PLAT |
| 3                      | 7    | 01   |
| CONTAINING PARCELS     |      |      |
| SCALE: 1 in. = 200 ft. |      |      |

PRINTED

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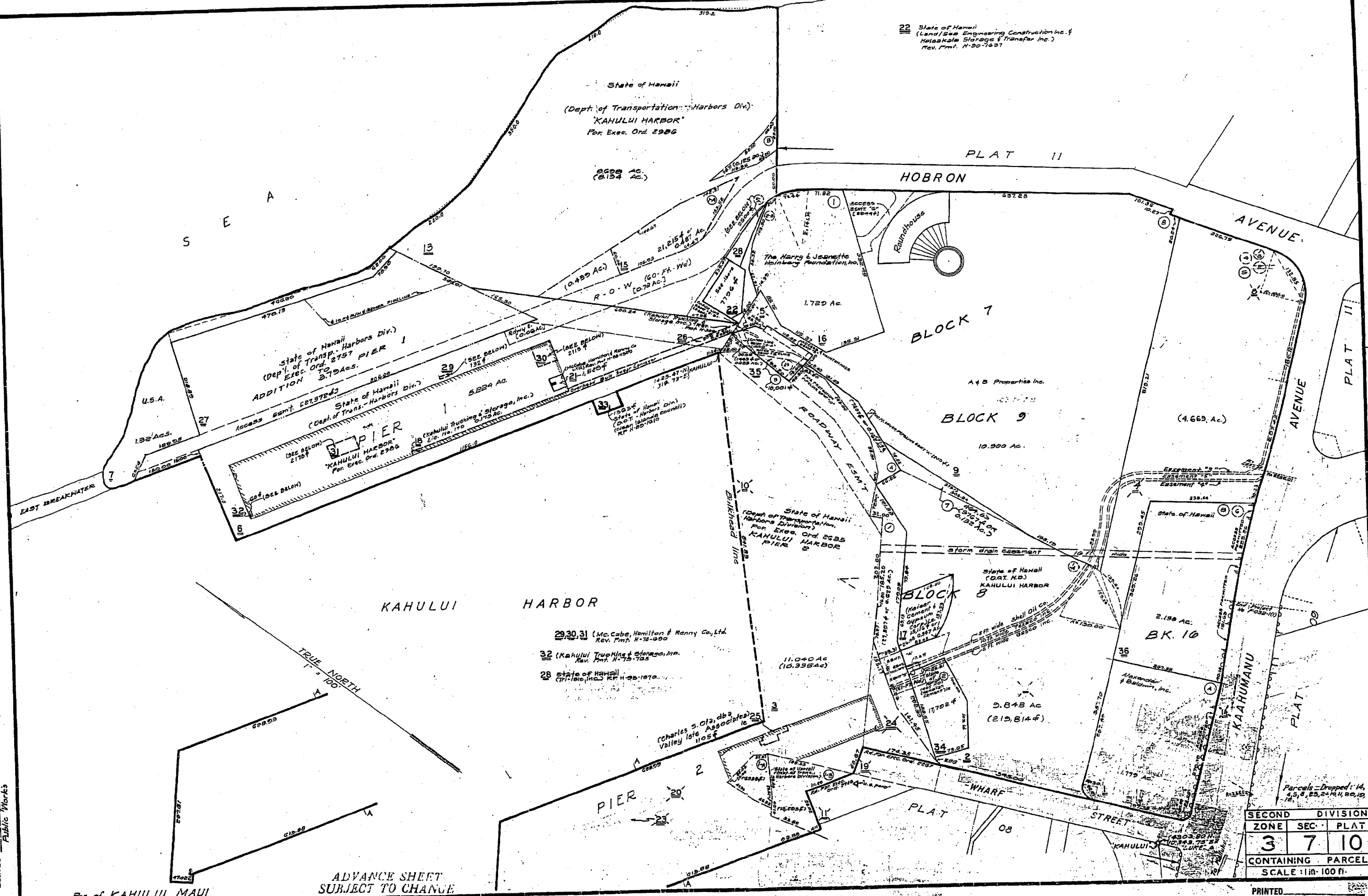
Dwg No. 1859  
By: F.N.D. L.N.A.  
Source: Map Notes Bureau



| SECOND DIVISION       |      |      |
|-----------------------|------|------|
| ZONE                  | SEC. | PLAT |
| 3                     | 7    | 08   |
| CONTAINING 24 PARCELS |      |      |
| SCALE: 1" = 50'       |      |      |

PRINTED

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APR 30 1968  
JUL 1 1968  
DEC 13 1968  
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JUL 8 1963  
DEC 1 1963  
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JUL 1 1971  
JUL 2 1971  
MAY 20 1971  
JUL 3 1971  
NOV 11 1971  
DEC 1971  
FEB 1 1972  
APR 17 1972  
JUN 23 1972  
JUL 3 1972  
JUL 16 1973  
JUL 16 1973  
MAR 7 1974  
JUL 11 1974  
AUG 2 1974  
SEP 4 1974  
APR 9 1975  
JUL 1 1975  
AUG 1 1975  
FEB 3 1983  
OCT 16 1984



|                         |      |      |
|-------------------------|------|------|
| SECOND DIVISION         |      |      |
| ZONE                    | SEC. | PLAT |
| 3                       | 7    | 10   |
| CONTAINING PARCELS      |      |      |
| SCALE : 1 in. = 100 ft. |      |      |

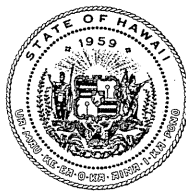
Dwg No. 1864  
By N.A.  
Source Taxi Maps Bureau  
Public Works

Por. of KAHULUI, MAUI

ADVANCE SHEET  
SUBJECT TO CHANGE

PRINTED \_\_\_\_\_





STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7814.05

November 14, 2005

Mr. George Y. Tengan  
Director  
Department of Water Supply  
County of Maui  
200 South High Street  
Wailuku, Hawaii 96793-2155

Dear Mr. Tengan:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments on the subject document dated September 9, 2004. We offer the following responses.

1. Regarding your concerns on alien species. The alien species issues are addressed in the *Kahului Commercial Harbor 2025 Master Plan Environmental Assessment* (EA) Section 4.10.1.4. As stated in the document, the State Departments of Agriculture, Health, and Land & Natural Resources have the jurisdictional responsibilities over the control of alien species. These agencies will continue to develop, implement and enforce the measures to control the introduction and spread of alien species. As stated in the document, the proposed improvements will not have significant impacts on the introduction of alien species through the Harbor and therefore, no mitigation measures are being recommended.
2. Regarding your comment about water source availability and consumption. The EA will reflect the designation of the Iao Aquifer as a Groundwater Management Area by the Commission on Water Resource Management (CWRM).
3. Regarding your suggestion that the EA should include estimated water demand for the proposed improvements, including increased use due to the forecast increase in passengers and vessels utilizing the harbor. The projected water use for Kahului Commercial Harbor in 2010 is 0.04 million gallons-per-day (MGD). This will be included in the EA.

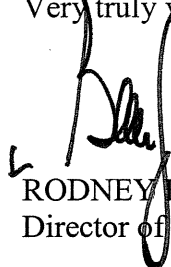
Mr. George Y. Tengan  
Page 2  
November 14, 2005

HAR-EP 7814.05

4. Regarding your comment about the system infrastructure. The Harbors Division will coordinate the improvements with the Maui County Department of Water Supply.
5. Regarding your comments on pollution prevention and adoption of best management practices (BMPs). BMPs will be utilized as mentioned in the EA Sections 1.3 and 4.8.
6. Regarding your comments that the following water conservation measures be included in the EA and implemented in project design and construction: Eliminate Single-Pass Cooling, Utilize Low-Flow Fixtures and Devices, Maintain Fixtures to Prevent Leaks, Use Climate-Adapted Plants, and Prevent Over-Watering By Automated Systems. To the extent possible, the Harbors Division will use water saving devices as stated in the EA Sections 1.3 and 3.4. Please be advised, however, that the Harbors Division's projects are not subject to county approvals.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my Harbor's planning staff at (808) 587-2503.

Very truly yours,



RODNEY K. HARAGA  
Director of Transportation

12/5 05.0258

ALAN M. ARAKAWA  
MAYOR

'04 SEP -8 A8:51

HARBOR



OFFICE OF THE MAYOR  
County of Maui

200 South High Street  
Wailuku, Hawaii 96793-2155  
Telephone (808) 270-7855  
Fax (808) 270-7870  
e-mail: mayors.office@co.maui.hi.us

September 7, 2004

Rodney Haraga, Director of Transportation  
State Of Hawaii  
Department of Transportation, Harbors Division  
79 South Nimitz Highway  
Honolulu, Hawaii 96813

RECEIVED<sup>M</sup>

SEP 13 2004

EKNA SERVICES, INC.

SUBJECT: OFFICIAL COMMENTS ON DRAFT ENVIRONMENTAL ASSESSMENT  
FOR KAHULUI COMMERCIAL HARBOR IMPROVEMENTS

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for proposed Kahului Commercial Harbor Improvements. As Executive Assistant for Environmental Concerns to Mayor Alan Arakawa, I have the following comments:

COMPLIANCE WITH ENVIRONMENTAL REVIEW

I believe the environmental review process for issuing the Draft EA, and particularly for preconsultation, was insufficient. According to state law, the agency preparing a Draft EA or EIS must consult with community groups and individuals early in the process:

*"§11-200-09 (a) (1) Seek, at the earliest practicable time, the advice and input of the county agency responsible for implementing the county's general plan for each county in which the proposed action is to occur, and consult with other agencies having jurisdiction or expertise as well as those citizen groups and individuals which the proposing agency reasonably believes to be affected;"*

Section 8.0 of the Draft EA lists the agencies and organizations contacted in pre-consultation. The list of private agencies contacted is primarily those with economic interests, while those agencies with environmental interests were overlooked. Maui Tomorrow, Sierra Club-Maui Group, Kahea, and Hui Alanui O Makena are respected organizations which work to implement responsible planning strategies, environmental and cultural protection, and to teach and promote sustainable growth policies. Certainly they should have been pre-consulted, or at a minimum, been mailed a copy of the DEA.

Likewise, these County agencies were overlooked: Mayor's Office (especially relevant with the Mayor's Cruise Ship Task Force having met twice a month since January, 2004); Maui County Department of Transportation (also involved in discussions regarding the super ferry); Maui Fire Department; Maui Police Department; and the Cultural Resources Commission.

R/S 05.0258.

-2-

None of the following State, Federal, and local agencies was contacted regarding alien pest species introduction, prevention and rapid response: State of Hawaii Department of Agriculture and Department of Health; United States Department of Agriculture, Department of Homeland Security, Environmental Protection Agency (Clean Water Act regulator for cruise ships), Coast Guard, and Department of the Interior (Haleakala National Park); Maui Invasive Species Committee MISC); East Maui Watershed Partnership; West Maui Mountain Watershed Partnership. Increased harbor traffic, including cruise ships and the super ferry, represent real threats to Hawaii's native ecosystems and endangered species, as well as to agricultural viability, through increased probabilities of introduction of alien pest species or diseases.

There is no indication that a public pre-consultation meeting was held, no list of public libraries where the Draft EA was distributed, no detailed design plans, and no disclosure of amount of government funds involved. Finally, there is no explanation of why projects identified in the DOT 2025 Kahului Harbor Master plan are not related to projects proposed in this Draft EA, and should not, therefore, be recognized as segmentation of the environmental review process.

It is recommended that these numerous omissions be corrected in preparing a Draft Environmental Impact Statement, as it is likely that the proposed improvements will result in significant impacts, as will be discussed in the "Conclusions" section.

#### OVERVIEW: TRAFFIC; ALIEN SPECIES, ENVIRONMENTAL CONCERNS

The most glaring omission to this DEA is any inclusion of an independently prepared traffic analysis, such as a Traffic Impact Analysis Report. The projected impacts to Maui's roadway transportation system would be greatly impacted by daily visits by the super ferry and cruise ship three days each week.

Hawaii Superferry, Inc. is proposing to bring 345-foot vessels that can carry 900 passengers and up to 280 vehicles. There is virtually no discussion in the DEA of parking facility or security needs, or of the logistics of bringing this additional traffic into the heart of congested Kahului. The Wailuku-Kahului Community plan, signed into law in 2002, states, (Transportation, Objectives and Policies, page 35);

*"8. The Department of Transportation should be strongly encouraged to mitigate its traffic impacts prior to or in conjunction with the Harbor expansion, including, but not limited to the following:*

- a. improve the intersections between Ka'ahumanu Avenue and Wharf Street and Hobron Street*
- b. provide alternative and bypass routes for vehicular traffic, possibly including a Direct route to Kahului Airport*

R/S 05.0258

-3-

- c. *provide safe (possibly underpass) routes for pedestrian traffic*
- d. *acquire pockets of land for more efficient facility location within Kahului Harbor, and*
- e. *work with the community to plan a second commercial harbor."*

There is no indication that any of these points are addressed in the Draft EA.

The DEA also fails to sufficiently address the increased probability of introduced alien pest species of animals, aquatic species, plants, insects, as well as plant and human pathogens. There is no discussion of increasing current mitigation efforts, which already are recognized as being insufficient. The super ferry puts Hawaii's environment and agricultural economy at great risk, with easy transport of insects (e.g. Nettle caterpillar, glassy-winged sharpshooter, red imported fire ants); plant diseases (banana bunchy top virus, papaya ringspot virus); aquatic nuisance species (*gracilaria salicornia* algae, and various species from hull fouling); and introduction of plants or seeds from the state Noxious Weed List.

Cruise ships heighten the possibility of introduction of human borne diseases, with 500,000 additional visitors expected each year via Norwegian Cruise Lines' projection of three ships by 2007. There is limited discussion of how the Harbor expansion plans would accommodate the 853-foot length of the cruise ships, or the 2000+ passengers three times each week, with another 700-800 crew members.

Additionally, interisland transport of passenger vehicles seems likely to instigate a variety of illegal activities, such as drug transporting, vehicle theft, and shipping of stolen goods. Yet, there appears to be no master plan for increasing security measures to match the huge influx of harbor activities.

The cruise ship industry has signed a Memorandum of Understanding (MOU) with the State of Hawaii (page 35). However, this MOU does not have the force and effect of law, and as such, fails to represent *bona fide* environmental protection from the large discharges associated with the industry.

The super ferry is expected to travel at speeds up to 35 knots. Yet, mitigation for possible collisions with the endangered Humpback Whale are not discussed, nor are other noise pollution issues for this sensitive winter resident of our ocean waters.

### CONCLUSION

The Draft Environmental Assessment for the Kahului Commercial Harbor Expansion fails to meet basic criteria pursuant to HRS Chapter 343. Further, there is insufficient data and evidence to support the conclusion that the document should constitute a Finding of No Significant Impact (FONSI). To the contrary, there are likely to be greatly

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significant impacts, including, but not limited to the following:

Significance Criteria

*(2) Curtails the range of beneficial uses of the environment.*

Harbor expansion as proposed would reduce the ability of recreational pursuits by canoe clubs and individuals who train in the harbor (page 43).

*(3) Conflicts with the state's long-term environmental policies or goals...*

Large consumption of water and energy resources would be necessary to fuel cruise ships and the super ferry. Wai'anae aquifer is a designated water management area, as it is being pumped beyond its sustainable yield. Large influx of traffic and tourists to the Kahului area do not appear to meet the "enhancement of quality of life" goal.

*(5) Substantially affects public health.*

There are strong possibilities of human borne diseases spreading more easily.

*(6) Involves secondary impacts....*

The ground transportation network would certainly be greatly impacted.

*(8) Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment to larger actions.*

There is no adequate explanation to support the statement that the "proposed action is not related to the future long-term actions represented in the 2025 Kahului Commercial Harbor Master Plan." One of the main reasons for environmental review is to adequately address such cumulative impacts, and not to separate component parts of a related long-range plan.

*(9) Substantially affects a rare, threatened, or endangered species, or its habitat.*

Failure to adequately address this criteria held the Kahului Airport expansion plan in litigation for years. Hawaii leads the nation in number of threatened and endangered endemic species. There must be a good faith effort made to mitigate introduction of new alien pest species into the State and particularly on Maui. Greatly increased harbor activities multiply the risks to our precious, unique native ecosystems, even those miles away from the harbor. Agency comments from the aforementioned groups are vital.

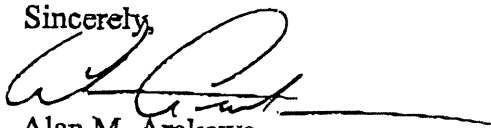
Any job worth doing is worth doing well, and this is no exception. Fast track efforts are often destined to be inferior, as we all are familiar with the adage that, "Haste makes

R/S 05.0258

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waste." It is my hope that there will be diligent efforts to protect Maui's environment and quality of life through dedicated preparation of Draft EIS. Without such efforts, Maui's community is not adequately protected from the wide-ranging impacts likely to result from the proposed actions for Kahului Commercial Harbor Expansion.

Sincerely,



Alan M. Arakawa  
Mayor, County of Maui

cc: Kivette Caigoy, Dept. of Planning  
Genevieve Salmonson, OEQC  
Teya Penniman, MISC

HARBOR DIVISION

04 SEP-8 18:51







STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
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BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP  
7816.06

November 14, 2005

Mayor Alan M. Arakawa  
County of Maui  
200 South High Street  
Wailuku, Hawaii 96793

Dear Mayor Arakawa:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – Job H. C. 3334

Thank you for your comments on the subject document dated September 7, 2004. We offer the following responses.

1. Regarding your comment about compliance with the environmental review process, particularly concerning the pre-consultation process. We respectfully disagree with your opinion about the adequacy of the pre-consultation process. The *Kahului Commercial Harbor 2025 Master Plan Environmental Assessment* (EA) Section 8.0 lists the agencies, organizations and individuals contacted in the pre-consultation process. Pursuant to the Office of Environment Quality Control's (OEQC) applicable guidelines, the following Maui County agencies were contacted during the pre-consultation period.
  - a. Department of Parks and Recreation,
  - b. Department of Public Works and Waste Management,
  - c. Department of Water Supply,
  - d. Office of Economic Development, and
  - e. Department of Planning.

This list includes the agency responsible for implementing the County's General Plan and other groups that we reasonably believe would be affected by the actions of the EA. The only agency that provided a response was the Department of Public Works and Waste Management. We were not informed by any of the Maui County agencies that other Maui County agencies should be included or contacted for consultation. In addition, many of the Maui agencies took part in the master planning process and were aware of the master plan and proposed improvements. The list of participants in the master

planning process will be added into the Final EA.

2. Regarding your comment about no public meetings during the pre-consultation process was held. There is no requirement for public meetings for an EA under HRS 343. The pre-consultation process that was followed meets the requirements of Hawaii Revised Statutes (HRS) Chapter 343.
3. Regarding your comment that there was no list of public libraries where the Draft EA was distributed. The Draft EA was distributed after it was published and, therefore, the list was not included in the Draft EA. However, the distribution to the libraries was pursuant to the applicable guidelines of the OEQC.
4. Regarding your comment that there are no detailed design plans and no disclosure of amount of government funds involved. The document is an environmental assessment of the *Kahului Commercial Harbor 2025 Master Plan*. Because this is a planning document, planning level drawings were used. In addition, the Harbors Division cannot spend State funds to produce detailed design plans until the environmental assessment is completed. The estimated amount of government funds involved for the proposed improvements will be included in the Final EA, and are as follows:
  - a. Pier 1 Comfort Station, Waterline and Sewer line: \$ 3,000,000;
  - b. Pier 1D Extension: \$ 1,000,000;
  - c. Pier 3 and 4 Linear: \$ 39,000,000;
  - d. Pier 4 Angled: \$ 26,000,000; and,
  - e. Pu'unene Storage Yard Improvements - \$ 4,000,000.
5. Regarding your comment on the segmentation issue. As stated in the EA Section 3.4, the intermediate- and long-term projects are not reasonably foreseeable or ripe for decision making. These projects were therefore not considered as part of the proposed project in the EA. The Hawaii Administrative Rules (HAR) Section 11-200-7, defines the circumstances under which a group of actions proposed by an agency shall be treated as a single action:
  - The component actions are independent of each other and do not represent a larger total undertaking;
  - The individual projects are not necessarily precedent to the larger project;
  - The individual projects are not a commitment to a larger project; and,
  - The individual actions are not essentially identical.

The short-, intermediate- and long-term projects meet the above conditions. We are not segmenting a larger project to avoid an Environmental Impact Statement (EIS).

6. Regarding your comment on the need for an EIS. Under the HRS Chapter 343, an EIS is required if there is a significant impact to the environment by a proposed project. The studies and analyses conducted for the EA indicate that the proposed projects will NOT have any significant impacts. Therefore, a Finding of No Significant Impact (FONSI) will be determined in the Final EA and an EIS will not be required. In addition, we respectfully disagree with your opinion on the adequacy of the Draft EA.
7. Regarding your comment that an independently prepared traffic analysis be prepared, such as a Traffic Impact Analysis Report. We respectfully disagree with the opinion that Maui's roadway transportation system would be greatly impacted by daily visits by the Superferry and cruise ships. In addition, the traffic impacts associated with the proposed improvements are discussed in the Draft EA Section 4.22. The proposed improvements are not for any specific user and as stated in the *Kahului Commercial Harbor 2025 Master Plan*:

Berthing within the State's commercial harbors is generally not permanently assigned. Vessels entering the port are directed to their berths according to the shoreside facilities required and the availability of such berths.

This policy for common berth usage will be stated in the Final EA. Cruise ships are currently arriving at Kahului Harbor and the traffic from these operations will not significantly be impacted or modified by the proposed improvements. In addition, the majority of the cruise ship passengers depend on high capacity modes of transportation such as buses and van, or many of them walk to their destinations.

As far as the Superferry and its improvements. As stated previously, the improvements are not being made to accommodate a specific user, as the berths at the states commercial harbors are common use to the extent practical. Logistical issues for the Superferry will be accommodated by the Maui District Manager and the parking and security issues will be confined to Kahului Harbor.

Currently, the Superferry will be accommodated on Pier 2. To clarify the Superferry security issue, the following will be added into the Final EA.

The "Superferry" is required by law (33 Code of Federal Regulations) to develop, implement and maintain a Hawaii Superferry Vessel Security Plan that is submitted to and approved by the U.S. Coast Guard. The Hawaii Superferry Vessel Security Plan must include the Superferry's security personnel, training,

drills and exercises, record keeping, Maritime Security Level coordination and implementation, procedures for interfacing with terminal facility security, Declaration of Security, security systems and equipment maintenance, security measures for access control (including screening of vehicles and passengers), security measures for restricted areas, security measures for handling cargo, security measures for delivery of stores and bunkers, security measures for monitoring, security incident procedures, etc. The U.S. Coast Guard will monitor and enforce the security requirements of the Hawaii Superferry Vessel Security Plan. Whenever required, the Hawaii Superferry and the U.S. Coast Guard will request the assistance of the Maui Police Department, the State Department of Public Safety Sheriff Division, the Federal Bureau of Investigation, the State Department of Defense, the State Department of Land and Natural Resources Enforcement Officers and the Department of the State Attorney General.

8. Regarding your comment that the *Wailuku-Kahului Community Plan*, signed into law in 2002, states:

The Department of Transportation should be strongly encouraged to mitigate its traffic impacts prior to or in conjunction with the Harbor expansion, including, but not limited to the following.

- a) improve the intersections between Ka'ahumanu Avenue and Wharf Street and Hobron Street,
- b) provide alternative and bypass routes for vehicular traffic possibly including a direct route to Kahului Airport;
- c) provide safe (possibly underpass) routes for pedestrian traffic;
- d) acquire pockets of land for more efficient facility location within Kahului Harbor; and,
- e) work with the community to plan a second commercial harbor.

Concerning item a, the Harbors Division has recently completed improvements to the Kaahumanu Avenue and Wharf Street intersection. Items b through d are projects not included in the *Kahului Commercial Harbor 2025 Master Plan* and therefore, not covered under this EA. As far as item e, the following will be included in the Final EA in respect to a second commercial harbor on Maui:

The U.S. Army Corps of Engineers performed a study for a second commercial harbor facility on Maui in 1995 titled the *Maui Second Commercial Harbor, Navigation Study*. The study identified six alternatives and concluded that the second harbor would not have an adequate benefit-to-cost (B/C) ratio to justify

the costs of developing the facility. In addition, the construction of a second harbor will take decades to complete and will incur significant environmental impacts. In fact, the study concluded; “Based on the July 1990 biological opinion, a proposed commercial harbor development in west Maui is likely to result in a jeopardy opinion<sup>1</sup> from NMFS [National Marine Fisheries Service].”

Therefore, a second harbor is not considered a reasonable and feasible alternative and no further analysis will be conducted in this environmental assessment. In addition, the second harbor alternative does not meet the purpose of the project, as:

- it does not facilitate [in the short-term] maritime shipments of the essential commodities required by Maui County;
- it does not optimize the utilization of land and water resources committed to marine cargo and passenger operations in an economically responsible manner; and
- it does not minimize the impact on environmental quality and recreational opportunities contiguous with the Harbor.

The computed benefit-to-cost (b/c) analysis results are shown in the Table 3-3 and include the impact of a 23-day and 39-day closure of the existing Kahului Commercial Harbor.

**TABLE 3-3**  
**BENEFIT-TO-COST RESULTS FOR SECOND MAUI HARBOR**

| <b>SITE</b>                  | <b>B/C WITH 23-DAY CLOSURE</b> | <b>B/C WITH 39-DAY CLOSURE</b> |
|------------------------------|--------------------------------|--------------------------------|
| Hata Bay Breakwater Harbor   | 0.08                           | 0.16                           |
| Maalaea Pier                 | 0.38                           | 0.50                           |
| Ukumehame Pier               | 0.50                           | 0.71                           |
| Olowalu Pier                 | 0.50                           | 0.71                           |
| Olowalu Dock & Turning Basin | 0.39                           | 0.56                           |
| Olowalu Dredged Harbor       | 0.27                           | 0.38                           |

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<sup>1</sup> A jeopardy opinion means that the project will jeopardize the continued existence of an endangered species.

9. Regarding your comment that the Draft EA also fails to sufficiently address the increased probability of introduced alien pest species of animals, aquatic species plants, insects, as well as plant and human pathogens. Mitigation measures for the control of alien species introduction are discussed in the EA Section 4.10.1.4. The Hawaii Department of Agriculture (HDOA), Hawaii Department of Health (HDOH) and other agencies have the responsibility for and jurisdiction over the prevention and mitigation of the introduction of alien species. In addition, the Hawaii Department of Land and Natural Resources (HDLNR), Division of Aquatic Resources (DAR) has jurisdiction over aquatic alien species. DAR's role will be described in the Final EA.

In addition, the following information will also be added to the Final EA.

Alien species can be introduced purposefully or incidentally, such as by hitchhiking on cargo or as stowaways in the containers. Therefore, many of the alien pest species hitchhike on commodities imported by businesses and residents of Maui County. This is shown in the results from the Kahului Airport Risk Assessment, which indicates that the passengers are typically a low risk pathway for the importation of alien species. The high-risk commodities for the importation of alien pest species include plants and propagative plant parts. Other high-risk commodities include organic produce, leafy greens (such as lettuce, cabbage and kale), cut flowers, strawberries, and peppers. Other high-risk commodities, which enter through the Harbor, include Christmas trees and other plant material.

Once an alien species is established on one island it is highly likely to spread to other islands, especially seeds and flying insects. The inter-island dispersal pathways include, but are not limited to, seeds carried by birds, migration of birds, dispersal by wind and dispersal by ocean currents.

The HDOA has designated Kahului as a limited port-of-entry for overseas agricultural commodities, therefore only plants and plant products such as produce and cut flowers are allowed entry. Live animals (except live seafood for consumption) and microorganisms from foreign and domestic origins are not allowed entry through Kahului unless inspected by HDOA in Honolulu prior to the transport to Kahului.

Therefore, pursuant to the HRS, Section 150A-5 any person transporting any agricultural commodity to Hawaii shall notify the HDOA and hold the commodity on the dock, pier, wharf, airport, air terminal where they are first received or discharged until inspection can be made by the Plant Quarantine Inspector. However, because there has always been a shortage of space at the piers,

transportation companies have been requesting more inspections to be done at sites other than the dock or at the dock but before or after regular work time to allow for the containers to be moved from the docks. For the maritime operations, the shippers will reimburse the State for the inspector's cost to inspect the containers during overtime hours.

Although HDOA manpower is limited at other ports, the addition of DOT funded agricultural inspectors at Kahului Airport allows the non-Airport inspectors to work more hours at the Harbor to perform the necessary inspections. In addition, there are more inspectors to work overtime hours to inspect the incoming maritime commodities, if necessary.

Similarly, propagative agricultural commodities cannot move between islands without HDOA inspection. If this cargo is not inspected by HDOA, Young Brothers will not allow the cargo to be boarded onto the vessel. Non-propagative plant parts, such as cut flowers, fruits, vegetables and produce, need not be inspected provided that they are subject to random inspection by HDOA. Similarly, Hawaii Superferry is currently working on the HDOA requirements for their operations with HDOA and has included the following measures in their Tariff No. 1.

- *“Domestic cats and dogs **ONLY** may travel on Carrier’s [“Superferry”] vessels. No other animals are permitted except livestock and poultry from Hawaii Department of Agriculture (HDOA) licensed agricultural producers. Carrier does not permit the carriage of reptiles, snakes, birds (except HDOA registered poultry transported by registered growers), rodents or exotic species of animals of any kind.*
- *Only plants, flowers and crops that have either been inspected and passed at the HDOA Plant Quarantine Office or via the Nursery Self Certification Program may be transported on Carrier’s [“Superferry”] vessel. In all cases, a “Passed” sticker must be shown before plants will be allowed on the ferry. No other plants will be permitted on the ferry and must be left for destruction by Carrier’s [“Superferry”] personnel.”*

10. Regarding your concern that cruise ships heighten the possibility of introduction of human borne diseases. The proposed improvements will not impact the spread of human borne diseases, or impact health services as stated in the EA Section 4.19.

11. Regarding your concern that inter-island transport of passenger vehicles seems likely to instigate a variety of illegal activities. The police and public safety concerns (which

would include any illegal activities) are addressed in the EA Section 4.18. The Harbors Division has no authority to control what is shipped through its ports, nor does it have any authority to inspect or prevent the introduction of drugs into Maui. As stated in the EA, the jurisdiction for these inspections and prevention is with various State and Federal agencies.

12. Regarding your concern that the Memorandum of Understanding (MOU) between the cruise industry and the State of Hawaii does not have the force and effect of law, and as such, fails to represent bone fide environmental protection from the large discharges associated with the industry. It is correct that there are no fines associated with the MOU. It is beyond the scope of the EA because the proposed improvements will not impact the risk or chance of a large discharge associated with the industry. As for harbor waters, pursuant to the HAR Section 19-42-127, "Littering or polluting of water prohibited," it is illegal to pollute or discharge either directly or indirectly anything other than clean water into any harbor. The U.S. Coast Guard and the Harbors Division enforces this law and there are fines associated with this law.
13. Regarding your concern about mitigation measures for possible collisions with the endangered Humpback Whale by the Superferry and other noise pollution issues for this sensitive winter resident of our ocean whales. The facilities to accommodate the Superferry are not part of the proposed project and the Superferry can be accommodated at the existing piers at Kahului Harbor. The Superferry has recently received approval on their Whale Avoidance Policy from the Hawaii Humpback Whale Sanctuary Advisory Committee. This document is attached in Appendix F of the Final EA.
14. Regarding your comment that the Draft EA fails to meet basic criteria pursuant to HRS Chapter 343 and that there is insufficient data and evidence to support the conclusion that the document should constitute a FONSI. We respectfully disagree with your opinion. The following are responses to your specific comments of the significance criteria.

(2) Curtails the range of beneficial uses of the environment.

Comment. Harbor expansion as proposed would reduce the ability of recreational pursuits by canoe clubs and individuals who train in the harbor (page 43).

Response. No specific comment is provided, however, if the commentator is referring to Pier 2C, the project (i.e., the extension of Pier 2C) has been deleted from the proposed project and will not be constructed under this EA. In addition, even with Pier 2C, the use of the harbor would not be curtailed by the canoe



paddlers. We do disagree as the harbor is a commercial harbor and pursuant to HRS Chapter 266 is for the commercial use of its facilities. HRS Chapter 266-1 states:

for the purpose of this chapter, “commercial harbor” means a harbor or off-shore mooring facility which is primarily for the movement of commercial cargo, passenger and fishing vessels entering, leaving, or traveling within the State, and facilities and supporting services for loading, off-loading, and handling of cargo, passengers and vessels.

The Harbors Division’s statutory authority does not extend to recreational activities and recreational use of its commercial harbors. In addition, as stated in the Draft EA, the improvements would allow the harbor to meet existing and future demands for Maui. This is beneficial as approximately 80 percent of goods used in Maui arrive through the harbor.

(3) Conflicts with the state's long-term environmental policies or goals...

Comment. Large consumption of water and energy resources would be necessary to fuel cruise ships and the Superferry. Iao aquifer is a designated water management area, as it is being pumped beyond its sustainable yield. Large influx of traffic and tourists to the Kahului area do not appear to meet the “enhancement of quality of life” goal.

Response. We disagree, as the improvements will not cause a significant increase in the water and energy consumption. The ships are scheduled and forecast to arrive with or without the proposed improvements to Kahului Harbor. As far as energy consumption, the vessel will use fuel that is not produced in Maui. It is transported to Maui with barges through the Kahului Harbor and therefore, would not be a significant impact. As for Superferry, the current plan is to load water and fuel in Honolulu only.

(5) Substantially affects public health.

Comment. There are strong possibilities of human borne diseases spreading more easily.

Response. The comment is not specific, but the proposed improvements will not impact the spread of human borne diseases, or impact health services as stated in the EA Section 4.19.

(6) Involves secondary impacts...

Comment. The ground transportation network would certainly be greatly impacted.

Response. We respectfully disagree, as stated above and in the EA Section 4.22.

(8) Is individually limited but cumulatively has considerable effect upon the environment or Involves a commitment to larger actions.

Comment. There is no adequate explanation to support the statement that the "proposed action is not related to the future long-term actions represented in the *2025 Kahului Commercial Harbor Master Plan*." One of the main reasons for environmental review is to adequately address such cumulative impacts, and not to separate component parts of a related long-range plan.

Response. As stated in the EA Section 1.1, the intermediate - and long-range projects are not reasonably foreseeable and not ripe for decision making. In addition, the Pier 5 improvements and associated breakwater improvements are on indefinite hold due to operational issues.

(9) Substantially affects a rare, threatened, or endangered species, or its habitat.

Comment. Failure to adequately address this criteria as it pertains to the introduction of new alien pest species into the State and particularly on Maui,

Response. We respectfully disagree and please see our response above and it is addressed in the EA Section 4.10.1.4.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of the Harbors Division Planning Section, in Honolulu at (808) 587-2503.

Very truly yours,



RODNEY K. HARAGA  
Director of Transportation

R/S 05.0258

ALAN M. ARAKAWA  
MAYOR



OFFICE OF THE MAYOR  
County of Maui

200 South High Street  
Wailuku, Hawaii 96793-2155  
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e-mail: mayors.office@co.maui.hi.us

September 7, 2004

Rodney Haraga, Director of Transportation  
State Of Hawaii  
Department of Transportation, Harbors Division  
79 South Nimitz Highway  
Honolulu, Hawaii 96813

SUBJECT: OFFICIAL COMMENTS ON DRAFT ENVIRONMENTAL ASSESSMENT  
FOR KAHULUI COMMERCIAL HARBOR IMPROVEMENTS

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for proposed Kahului Commercial Harbor Improvements. As Executive Assistant for Environmental Concerns to Mayor Alan Arakawa, I have the following comments:

COMPLIANCE WITH ENVIRONMENTAL REVIEW

I believe the environmental review process for issuing the Draft EA, and particularly for preconsultation, was insufficient. According to state law, the agency preparing a Draft EA or EIS must consult with community groups and individuals early in the process:

*"§11-200-09 (a) (1) Seek, at the earliest practicable time, the advice and input of the county agency responsible for implementing the county's general plan for each county in which the proposed action is to occur, and consult with other agencies having jurisdiction or expertise as well as those citizen groups and individuals which the proposing agency reasonably believes to be affected;"*

Section 8.0 of the Draft EA lists the agencies and organizations contacted in pre-consultation. The list of private agencies contacted is primarily those with economic interests, while those agencies with environmental interests were overlooked. Maui Tomorrow, Sierra Club-Maui Group, Kahea, and Hui Alanui O Makena are respected organizations which work to implement responsible planning strategies, environmental and cultural protection, and to teach and promote sustainable growth policies. Certainly they should have been pre-consulted, or at a minimum, been mailed a copy of the DEA.

Likewise, these County agencies were overlooked: Mayor's Office (especially relevant with the Mayor's Cruise Ship Task Force having met twice a month since January, 2004); Maui County Department of Transportation (also involved in discussions regarding the super ferry); Maui Fire Department; Maui Police Department; and the Cultural Resources Commission.

*Building A Better Community*

HARBORS DIVISION

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None of the following State, Federal, and local agencies was contacted regarding alien pest species introduction, prevention and rapid response: State of Hawaii Department of Agriculture and Department of Health; United States Department of Agriculture, Department of Homeland Security, Environmental Protection Agency (Clean Water Act regulator for cruise ships), Coast Guard, and Department of the Interior (Haleakala National Park); Maui Invasive Species Committee MISC); East Maui Watershed Partnership; West Maui Mountain Watershed Partnership. Increased harbor traffic, including cruise ships and the super ferry, represent real threats to Hawaii's native ecosystems and endangered species, as well as to agricultural viability, through increased probabilities of introduction of alien pest species or diseases.

There is no indication that a public pre-consultation meeting was held, no list of public libraries where the Draft EA was distributed, no detailed design plans, and no disclosure of amount of government funds involved. Finally, there is no explanation of why projects identified in the DOT 2025 Kahului Harbor Master plan are not related to projects proposed in this Draft EA, and should not, therefore, be recognized as segmentation of the environmental review process.

It is recommended that these numerous omissions be corrected in preparing a Draft Environmental Impact Statement, as it is likely that the proposed improvements will result in significant impacts, as will be discussed in the "Conclusions" section.

#### OVERVIEW: TRAFFIC; ALIEN SPECIES, ENVIRONMENTAL CONCERNS

The most glaring omission to this DEA is any inclusion of an independently prepared traffic analysis, such as a Traffic Impact Analysis Report. The projected impacts to Maui's roadway transportation system would be greatly impacted by daily visits by the super ferry and cruise ship three days each week.

Hawaii Superferry, Inc. is proposing to bring 345-foot vessels that can carry 900 passengers and up to 280 vehicles. There is virtually no discussion in the DEA of parking facility or security needs, or of the logistics of bringing this additional traffic into the heart of congested Kahului. The Wailuku-Kahului Community plan, signed into law in 2002, states, (Transportation, Objectives and Policies, page 35);

*"8. The Department of Transportation should be strongly encouraged to mitigate its traffic impacts prior to or in conjunction with the Harbor expansion, including, but not limited to the following:*

- a. improve the intersections between Ka'ahumanu Avenue and Wharf Street and Hobron Street*
- b. provide alternative and bypass routes for vehicular traffic, possibly including a Direct route to Kahului Airport*

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- c. provide safe (possibly underpass) routes for pedestrian traffic
- d. acquire pockets of land for more efficient facility location within Kahului Harbor, and
- e. work with the community to plan a second commercial harbor."

There is no indication that any of these points are addressed in the Draft EA.

The DEA also fails to sufficiently address the increased probability of introduced alien pest species of animals, aquatic species, plants, insects, as well as plant and human pathogens. There is no discussion of increasing current mitigation efforts, which already are recognized as being insufficient. The super ferry puts Hawaii's environment and agricultural economy at great risk, with easy transport of insects (e.g. Nettle caterpillar, glassy-winged sharpshooter, red imported fire ants); plant diseases (banana bunchy top virus, papaya ringspot virus); aquatic nuisance species (*gracilaria salicornia* algae, and various species from hull fouling); and introduction of plants or seeds from the state Noxious Weed List.

Cruise ships heighten the possibility of introduction of human borne diseases, with 500,000 additional visitors expected each year via Norwegian Cruise Lines' projection of three ships by 2007. There is limited discussion of how the Harbor expansion plans would accommodate the 853-foot length of the cruise ships, or the 2000+ passengers three times each week, with another 700-800 crew members.

Additionally, interisland transport of passenger vehicles seems likely to instigate a variety of illegal activities, such as drug transporting, vehicle theft, and shipping of stolen goods. Yet, there appears to be no master plan for increasing security measures to match the huge influx of harbor activities.

The cruise ship industry has signed a Memorandum of Understanding (MOU) with the State of Hawaii (page 35). However, this MOU does not have the force and effect of law, and as such, fails to represent *bona fide* environmental protection from the large discharges associated with the industry.

The super ferry is expected to travel at speeds up to 35 knots. Yet, mitigation for possible collisions with the endangered Humpback Whale are not discussed, nor are other noise pollution issues for this sensitive winter resident of our ocean waters.

### CONCLUSION

The Draft Environmental Assessment for the Kahului Commercial Harbor Expansion fails to meet basic criteria pursuant to HRS Chapter 343. Further, there is insufficient data and evidence to support the conclusion that the document should constitute a Finding of No Significant Impact (FONSI). To the contrary, there are likely to be greatly

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significant impacts, including, but not limited to the following:

Significance Criteria

*(2) Curtails the range of beneficial uses of the environment.*

Harbor expansion as proposed would reduce the ability of recreational pursuits by canoe clubs and individuals who train in the harbor (page 43).

*(3) Conflicts with the state's long-term environmental policies or goals...*

Large consumption of water and energy resources would be necessary to fuel cruise ships and the super ferry. 'Iao aquifer is a designated water management area, as it is being pumped beyond its sustainable yield. Large influx of traffic and tourists to the Kahului area do not appear to meet the "enhancement of quality of life" goal.

*(5) Substantially affects public health.*

There are strong possibilities of human borne diseases spreading more easily.

*(6) Involves secondary impacts....*

The ground transportation network would certainly be greatly impacted.

*(8) Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment to larger actions.*

There is no adequate explanation to support the statement that the "proposed action is not related to the future long-term actions represented in the 2025 Kahului Commercial Harbor Master Plan." One of the main reasons for environmental review is to adequately address such cumulative impacts, and not to separate component parts of a related long-range plan.

*(9) Substantially affects a rare, threatened, or endangered species, or its habitat.*

Failure to adequately address this criteria held the Kahului Airport expansion plan in litigation for years. Hawaii leads the nation in number of threatened and endangered endemic species. There must be a good faith effort made to mitigate introduction of new alien pest species into the State and particularly on Maui. Greatly increased harbor activities multiply the risks to our precious, unique native ecosystems, even those miles away from the harbor. Agency comments from the aforementioned groups are vital.

Any job worth doing is worth doing well, and this is no exception. Fast track efforts are often destined to be inferior, as we all are familiar with the adage that, "Haste makes

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waste." It is my hope that there will be diligent efforts to protect Maui's environment and quality of life through dedicated preparation of a Draft EIS. Without such efforts, Maui's community is not adequately protected from the wide-ranging impacts likely to result from the proposed actions for Kahului Commercial Harbor Expansion.

Sincerely,



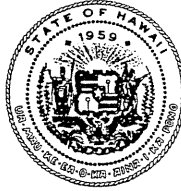
Robert W. Parsons  
Executive Assistant for Environmental Concerns  
Office of the Mayor

cc: Mayor Alan M. Arakawa  
Kivette Caigoy, Dept. of Planning  
Genevieve Salmonson, OEQC  
Teya Penniman, MISC





LINDA LINGLE  
GOVERNOR



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IN REPLY REFER TO:

HAR-EP  
7815.06

November 14, 2005

Mr. Robert W. Parsons  
Executive Assistant for Environmental Concerns  
Office of the Mayor  
County of Maui  
200 South High Street  
Wailuku, Hawaii 96793

Dear Mr. Parsons:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – Job H. C. 3334

Thank you for your comments on the subject document dated September 7, 2004. We offer the following responses.

1. Regarding your comment about compliance with the environmental review process, particularly concerning the pre-consultation process. We respectfully disagree with your opinion about the adequacy of the pre-consultation process. The *Kahului Commercial Harbor 2025 Master Plan Environmental Assessment* (EA) Section 8.0 lists the agencies, organizations and individuals contacted in the pre-consultation process. Pursuant to the Office of Environment Quality Control's (OEQC) applicable guidelines, the following Maui County agencies were contacted during the pre-consultation period.
  - a. Department of Parks and Recreation,
  - b. Department of Public Works and Waste Management,
  - c. Department of Water Supply,
  - d. Office of Economic Development, and
  - e. Department of Planning.

This list includes the agency responsible for implementing the County's General Plan and other groups that we reasonably believe would be affected by the actions of the EA. The only agency that provided a response was the Department of Public Works and Waste Management. We were not informed by any of the Maui County agencies that other Maui County agencies should be included or contacted for consultation. In addition,

many of the Maui agencies took part in the master planning process and were aware of the master plan and proposed improvements. The list of participants in the master planning process will be added into the Final EA.

2. Regarding your comment about no public meetings during the pre-consultation process was held. There is no requirement for public meetings for an EA under HRS 343. The pre-consultation process that was followed meets the requirements of Hawaii Revised Statutes (HRS) Chapter 343.
3. Regarding your comment that there was no list of public libraries where the Draft EA was distributed. The Draft EA was distributed after it was published and therefore, the list was not included in the Draft EA. However, the distribution to the libraries was pursuant to the applicable guidelines of the OEQC.
4. Regarding your comment that there are no detailed design plans and no disclosure of amount of government funds involved. The document is an environmental assessment of the *Kahului Commercial Harbor 2025 Master Plan*. Because this is a planning document, planning level drawings were used. In addition, the Harbors Division cannot spend State funds to produce detailed design plans until the environmental assessment is completed. The estimated amount of government funds involved for the proposed improvements will be included in the Final EA, and are as follows:
  - a. Pier 1 Comfort Station, Waterline and Sewer line: \$ 3,000,000;
  - b. Pier 1D Extension: \$ 1,000,000;
  - c. Pier 3 and 4 Linear: \$ 39,000,000;
  - d. Pier 4 Angled: \$ 26,000,000; and,
  - e. Pu'unene Storage Yard Improvements - \$ 4,000,000.
5. Regarding your comment on the segmentation issue. As stated in the EA Section 3.4, the intermediate- and long-term projects are not reasonably foreseeable or ripe for decision making. These projects were therefore not considered as part of the proposed project in the EA. The Hawaii Administrative Rules (HAR) Section 11-200-7, defines the circumstances under which a group of actions proposed by an agency shall be treated as a single action:
  - The component actions are independent of each other and do not represent a larger total undertaking;
  - The individual projects are not necessarily precedent to the larger project;
  - The individual projects are not a commitment to a larger project; and,
  - The individual actions are not essentially identical.

The short-, intermediate- and long-term projects meet the above conditions. We are not segmenting a larger project to avoid an Environmental Impact Statement (EIS).

6. Regarding your comment on the need for an EIS. Under the HRS Chapter 343, an EIS is required if there is a significant impact to the environment by a proposed project. The studies and analyses conducted for the EA indicate that the proposed projects will NOT have any significant impacts. Therefore, a Finding of No Significant Impact (FONSI) will be determined in the Final EA and an EIS will not be required. In addition, we respectfully disagree with your opinion on the adequacy of the Draft EA.
5. Regarding your comment that an independently prepared traffic analysis be prepared, such as a Traffic Impact Analysis Report. We respectfully disagree with the opinion that Maui's roadway transportation system would be greatly impacted by daily visits by the Superferry and cruise ships. In addition, the traffic impacts associated with the proposed improvements are discussed in the Draft EA Section 4.22. The proposed improvements are not for any specific user and as stated in the *Kahului Commercial Harbor 2025 Master Plan*:

Berthing within the State's commercial harbors is generally not permanently assigned. Vessels entering the port are directed to their berths according to the shoreside facilities required and the availability of such berths.

This policy for common berth usage will be stated in the Final EA. Cruise ships are currently arriving at Kahului Harbor and the traffic from these operations will not significantly be impacted or modified by the proposed improvements. In addition, the majority of the cruise ship passengers depend on high capacity modes of transportation such as buses and van, or many of them walk to their destinations.

As far as the Superferry and its improvements. As stated previously, the improvements are not being made to accommodate a specific user, as the berths at the states commercial harbors are common use to the extent practical. Logistical issues for the Superferry will be accommodated by the Maui District Manager and the parking and security issues will be confined to Kahului Harbor.

Currently, the Superferry will be accommodated on Pier 2. To clarify the Superferry security issue, the following will be added into the Final EA.

The "Superferry" is required by law (33 Code of Federal Regulations) to develop, implement and maintain a Hawaii Superferry Vessel Security Plan that is submitted to and approved by the U.S. Coast Guard. The Hawaii Superferry

Vessel Security Plan must include the Superferry's security personnel, training, drills and exercises, record keeping, Maritime Security Level coordination and implementation, procedures for interfacing with terminal facility security, Declaration of Security, security systems and equipment maintenance, security measures for access control (including screening of vehicles and passengers), security measures for restricted areas, security measures for handling cargo, security measures for delivery of stores and bunkers, security measures for monitoring, security incident procedures, etc. The U.S. Coast Guard will monitor and enforce the security requirements of the Hawaii Superferry Vessel Security Plan. Whenever required, the Hawaii Superferry and the U.S. Coast Guard will request the assistance of the Maui Police Department, the State Department of Public Safety Sheriff Division, the Federal Bureau of Investigation, the State Department of Defense, the State Department of Land and Natural Resources Enforcement Officers and the Department of the State Attorney General.

6. Regarding your comment that the *Wailuku-Kahului Community Plan*, signed into law in 2002, states:

The Department of Transportation should be strongly encouraged to mitigate its traffic impacts prior to or in conjunction with the Harbor expansion, including, but not limited to the following.

- a) improve the intersections between Ka'ahumanu Avenue and Wharf Street and Hobron Street,
- b) provide alternative and bypass routes for vehicular traffic possibly including a direct route to Kahului Airport;
- c) provide safe (possibly underpass) routes for pedestrian traffic;
- d) acquire pockets of land for more efficient facility location within Kahului Harbor; and,
- e) work with the community to plan a second commercial harbor.

Concerning item a, the Harbors Division has recently completed improvements to the Ka'ahumanu Avenue and Wharf Street intersection. Items b through d are projects not included in the *Kahului Commercial Harbor 2025 Master Plan* and, therefore, not covered under this EA. As far as Item e, the following will be included in the Final EA in respect to a second commercial harbor on Maui:

The U.S. Army Corps of Engineers performed a study for a second commercial harbor facility on Maui in 1995 titled the *Maui Second Commercial Harbor, Navigation Study*. The study identified six alternatives and concluded that the

second harbor would not have an adequate benefit-to-cost (B/C) ratio to justify the costs of developing the facility. In addition, the construction of a second harbor will take decades to complete and will incur significant environmental impacts. In fact, the study concluded; “Based on the July 1990 biological opinion, a proposed commercial harbor development in west Maui is likely to result in a jeopardy opinion<sup>1</sup> from NMFS [National Marine Fisheries Service].”

Therefore, a second harbor is not considered a reasonable and feasible alternative and no further analysis will be conducted in this environmental assessment. In addition, the second harbor alternative does not meet the purpose of the project, as:

- it does not facilitate [in the short-term] maritime shipments of the essential commodities required by Maui County;
- it does not optimize the utilization of land and water resources committed to marine cargo and passenger operations in an economically responsible manner; and,
- it does not minimize the impact on environmental quality and recreational opportunities contiguous with the Harbor.

The computed benefit-to-cost (b/c) analysis results are shown in the Table 3-3 and include the impact of a 23-day and 39-day closure of the existing Kahului Commercial Harbor.

**TABLE 3-3**  
**BENEFIT-TO-COST RESULTS FOR SECOND MAUI HARBOR**

| <b>SITE</b>                  | <b>B/C WITH 23-DAY CLOSURE</b> | <b>B/C WITH 39-DAY CLOSURE</b> |
|------------------------------|--------------------------------|--------------------------------|
| Hata Bay Breakwater Harbor   | 0.08                           | 0.16                           |
| Maalaea Pier                 | 0.38                           | 0.50                           |
| Ukumehame Pier               | 0.50                           | 0.71                           |
| Olowalu Pier                 | 0.50                           | 0.71                           |
| Olowalu Dock & Turning Basin | 0.39                           | 0.56                           |
| Olowalu Dredged Harbor       | 0.27                           | 0.38                           |

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<sup>1</sup> A jeopardy opinion means that the project will jeopardize the continued existence of an endangered species.

7. Regarding your comment that the Draft EA also fails to sufficiently address the increased probability of introduced alien pest species of animals, aquatic species, plants, insects, as well as plant and human pathogens. Mitigation measures for the control of alien species introduction are discussed in the EA Section 4.10.1.4. The Hawaii Department of Agriculture (HDOA), Hawaii Department of Health (HDOH) and other agencies have the responsibility for and jurisdiction over the prevention and mitigation of the introduction of alien species. In addition, the Hawaii Department of Land and Natural Resources (HDLNR), Division of Aquatic Resources (DAR) has jurisdiction over aquatic alien species. DAR's role will be described in the Final EA.

In addition, the following information will also be added to the Final EA.

Alien species can be introduced purposefully or incidentally, such as by hitchhiking on cargo or as stowaways in the containers. Therefore, many of the alien pest species hitchhike on commodities imported by businesses and residents of Maui County. This is shown in the results from the Kahului Airport Risk Assessment, which indicates that the passengers are typically a low risk pathway for the importation of alien species. The high-risk commodities for the importation of alien pest species include plants and propagative plant parts. Other high-risk commodities include organic produce, leafy greens (such as lettuce, cabbage and kale), cut flowers, strawberries, and peppers. Other high-risk commodities, which enter through the Harbor, include Christmas trees and other plant material.

Once an alien species is established on one island it is highly likely to spread to other islands, especially seeds and flying insects. The interisland dispersal pathways include, but are not limited to, seeds carried by birds, migration of birds, dispersal by wind and dispersal by ocean currents.

The HDOA has designated Kahului as a limited port-of-entry for overseas agricultural commodities, therefore only plants and plant products such as produce and cut flowers are allowed entry. Live animals (except live seafood for consumption) and microorganisms from foreign and domestic origins are not allowed entry through Kahului unless inspected by HDOA in Honolulu prior to the transport to Kahului.

Therefore, pursuant to the HRS, Section 150A-5 any person transporting any agricultural commodity to Hawaii shall notify the HDOA and hold the commodity on the dock, pier, wharf, airport, air terminal where they are first received or

discharged until inspection can be made by the Plant Quarantine Inspector. However, because there has always been a shortage of space at the piers, transportation companies have been requesting more inspections to be done at sites other than the dock or at the dock but before or after regular work time to allow for the containers to be moved from the docks. For the maritime operations, the shippers will reimburse the State for the inspector's cost to inspect the containers during overtime hours.

Although HDOA manpower is limited at other ports, the addition of DOT funded agricultural inspectors at Kahului Airport allows the non-Airport inspectors to work more hours at the Harbor to perform the necessary inspections. In addition, there are more inspectors to work overtime hours to inspect the incoming maritime commodities, if necessary.

Similarly, propagative agricultural commodities cannot move between islands without HDOA inspection. If this cargo is not inspected by HDOA, Young Brothers will not allow the cargo to be boarded onto the vessel. Non-propagative plant parts, such as cut flowers, fruits, vegetables and produce, need not be inspected provided that they are subject to random inspection by HDOA. Similarly, Hawaii Superferry is currently working on the HDOA requirements for their operations with HDOA and has included the following measures in their Tariff No. 1.

- *“Domestic cats and dogs **ONLY** may travel on Carrier’s [“Superferry”] vessels. No other animals are permitted except livestock and poultry from Hawaii Department of Agriculture (HDOA) licensed agricultural producers. Carrier does not permit the carriage of reptiles, snakes, birds (except HDOA registered poultry transported by registered growers), rodents or exotic species of animals of any kind.*
- *Only plants, flowers and crops that have either been inspected and passed at the HDOA Plant Quarantine Office or via the Nursery Self Certification Program may be transported on Carrier’s [“Superferry”] vessel. In all cases, a “Passed” sticker must be shown before plants will be allowed on the ferry. No other plants will be permitted on the ferry and must be left for destruction by Carrier’s [“Superferry”] personnel.”*

8. Regarding your concern that cruise ships heighten the possibility of introduction of human borne diseases. The proposed improvements will not impact the spread of human borne diseases, or impact health services as stated in the EA Section 4.19.

9. Regarding your concern that inter-island transport of passenger vehicles seems likely to instigate a variety of illegal activities. The police and public safety concerns (which would include any illegal activities) are addressed in the EA Section 4.18. The Harbors Division has no authority to control what is shipped through its ports, nor does it have any authority to inspect or prevent the introduction of drugs into Maui. As stated in the EA, the jurisdiction for these inspections and prevention is with various State and Federal agencies.
10. Regarding your concern that the Memorandum of Understanding (MOU) between the cruise industry and the State of Hawaii does not have the force and effect of law, and as such, fails to represent bone fide environmental protection from the large discharges associated with the industry. It is correct that there are no fines associated with the MOU. It is beyond the scope of the EA because the proposed improvements will not impact the risk or chance of a large discharge associated with the industry. As for harbor waters, pursuant to the HAR Section 19-42-127, "Littering or polluting of water prohibited," it is illegal to pollute or discharge either directly or indirectly anything other than clean water into any harbor. The U.S. Coast Guard and the Harbors Division enforces this law and there are fines associated with this law.
11. Regarding your concern about mitigation measures for possible collisions with the endangered Humpback Whale by the Superferry and other noise pollution issues for this sensitive winter resident of our ocean whales. The facilities to accommodate the Superferry are not part of the proposed project and the Superferry can be accommodated at the existing piers at Kahului Harbor. The Superferry has recently received approval on their *Whale Avoidance Policy* from the Hawaii Humpback Whale Sanctuary Advisory Committee. This document is attached in Appendix F of the Final EA.
12. Regarding your comment that the Draft EA fails to meet basic criteria pursuant to HRS Chapter 343 and that there is insufficient data and evidence to support the conclusion that the document should constitute a FONSI. We respectfully disagree with your opinion. The following are responses to your specific comments of the significance criteria.

(2) Curtails the range of beneficial uses of the environment.

Comment. Harbor expansion as proposed would reduce the ability of recreational pursuits by canoe clubs and individuals who train in the harbor (page 43).

Response. No specific comment is provided, however, if the commentator is referring to Pier 2C, the project (i.e., the extension of Pier 2C) has been deleted from the proposed project and will not be constructed under this EA. In addition,



even with Pier 2C, the use of the harbor would not be curtailed by the canoe paddlers. We do disagree as the harbor is a commercial harbor and pursuant to HRS Chapter 266 is for the commercial use of its facilities. HRS Chapter 266-1 states:

for the purpose of this chapter, “commercial harbor” means a harbor or off-shore mooring facility which is primarily for the movement of commercial cargo, passenger and fishing vessels entering, leaving, or traveling within the State, and facilities and supporting services for loading, off-loading, and handling of cargo, passengers and vessels.

The Harbors Division’s statutory authority does not extend to recreational activities and recreational use of its commercial harbors. In addition, as stated in the Draft EA, the improvements would allow the harbor to meet existing and future demands for Maui. This is beneficial as approximately 80 percent of goods used in Maui arrive through the harbor.

(3) Conflicts with the state's long-term environmental policies or goals...

Comment. Large consumption of water and energy resources would be necessary to fuel cruise ships and the Superferry. Iao aquifer is a designated water management area, as it is being pumped beyond its sustainable yield. Large influx of traffic and tourists to the Kahului area do not appear to meet the “enhancement of quality of life” goal.

Response. We disagree, as the improvements will not cause a significant increase in the water and energy consumption. The ships are scheduled and forecast to arrive with or without the proposed improvements to Kahului Harbor. As far as energy consumption, the vessel will use fuel that is not produced in Maui. It is transported to Maui with barges through the Kahului Harbor and therefore, would not be a significant impact. As for Superferry, the current plan is to load water and fuel in Honolulu only.

(5) Substantially affects public health.

Comment. There are strong possibilities of human borne diseases spreading more easily.

Response. The comment is not specific, but the proposed improvements will not impact the spread of human borne diseases, or impact health services as stated in the EA Section 4.19.

(6) Involves secondary impacts...

Comment. The ground transportation network would certainly be greatly impacted.

Response. We respectfully disagree, as stated above and in the EA Section 4.22.

(8) Is individually limited but cumulatively has considerable effect upon the environment or Involves a commitment to larger actions.

Comment. There is no adequate explanation to support the statement that the "proposed action is not related to the future long-term actions represented in the *2025 Kahului Commercial Harbor Master Plan*." One of the main reasons for environmental review is to adequately address such cumulative impacts, and not to separate component parts of a related long-range plan.

Response. As stated in the EA Section 1.1, the intermediate- and long-range projects are not reasonably foreseeable and not ripe for decision making. In addition, the Pier 5 improvements and associated breakwater improvements are on indefinite hold due to operational issues.


(9) Substantially affects a rare, threatened, or endangered species, or its habitat.

Comment. Failure to adequately address this criteria as it pertains to the introduction of new alien pest species into the State and particularly on Maui,

Response. We respectfully disagree and please see our response above and it is addressed in the EA Section 4.10.1.4.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of the Harbors Division Planning Staff, in Honolulu at (808) 587-2503.

Very truly yours,

  
RODNEY K. HARAGA  
Director of Transportation

We paddlers support the preservation of Kahului Harbor for further outrigger canoe use and events. All harbor expansion must take into consideration the extensive use of the harbor by Maui residents for recreational and cultural ocean related activities.

| <u>Name</u>            | <u>Address</u>                    |
|------------------------|-----------------------------------|
| 1. Lauren Holen        | 194 Kulipw St Kihei               |
| 2. Candace Coleman     | 1148 Kupukau Dr. Kihei, HI 96755  |
| 3. SHAYLA GRANT        | 1184 LAULI PL. KIHAI, HI 96753    |
| 4. Joshua W. Greenberg | 1624 Kuuipo St. Lahaina, HI 96761 |
| 5. Sarah Uehara        | 1220 Kilauea Dr. Wailuku          |
| 6. Taylor Daly         | 5                                 |
| 7. Cady Deponte        | 3202 Hoomua Dr. Kihei             |
| 8. Jeff Vance          |                                   |
| 9. Mark Baldridge      |                                   |
| 10. Mojo Martinez      | 137 Ho'opili Akau st.             |
| 11. Davey Hutchinson   |                                   |
| 12. Molly Khalil       |                                   |
| 13. Victoria Gonzalez  |                                   |
| 14. Olivia Chiesa      |                                   |
| 15. Savannah H-Diehl   |                                   |
| 16. Emily Pallanes     | <del>Waimanalo</del>              |
| 17. Amber Hazuka       |                                   |
| 18. Nicole Joslin      | 437 Liholiho St                   |
| 19. Rosie McGoldrick   |                                   |
| 20. Jade Uchima        |                                   |

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EKNA SERVICES, INC.

other side



Department of Transportation  
Harbor Division  
79 South Nimitz Highway  
Honolulu, Hawai'i 96813

**Contact: Iris Ishida (587-1885)**

In the Kahului Commercial Harbors 2025 Master Plan ("Plan") prepared by the Department of Transportation (DOT) in 2000, studies were performed that forecast the cargo volumes and ship berthing space requirements for Kahului Harbor.

The draft environmental assessment for implementing commercial harbor improvements contained in the Plan notes that as of January 1, 2004, cruise ship bookings for Kahului Harbor consist of 89 visits by various ships ranging in size from 592 to 963 feet in length.

The 2025 forecast for Kahului projects an increase to 287 visits. Based on the projected cargo volumes and existing size of the cargo yards, DOT projects that the container yard at Pier 1 will reach capacity by 2005 and that at Pier 2 should have reached capacity by 2003. DOT is thus proposing the improvements to implement the provisions of the Plan.

Sept. 7, 2004  
Dear Folks,

I am writing in behalf of the Sierra Club, Maui Group regarding the draft EA for commercial harbor improvements to the Kahului Harbor.

We have comments and would like to be listed as a Consulting Party.

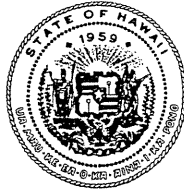
Introduction of invasive alien species is a primary concern of our members, as is the importance of adequate inspections for prevention of such introductions. It is likely that cars and trucks would easily carry seeds and eggs of such species.

Considering the seriousness of Maui's "ice" drug epidemic, we also have concerns over that kind of traffic.

We would also like to see study of expected growth impacts from the expected increase in visitor traffic, infrastructure impacts, etc.

Thank you,  
Daniel Grantham, Chair, Sierra Club Maui  
HC1, Box 47  
Haiku, HI 96708  
808-572-4571 dannyg@flex.com





STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP  
7818.06

November 10, 2005

Mr. Daniel Grantham  
Chair, Sierra Club Maui  
HC1, Box 47  
Haiku, Hawaii 96708

Dear Mr. Grantham:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – Job H. C. 3334

Thank you for your comments on the subject document dated September 7, 2004. We offer the following responses.

1. Regarding your request to be listed as a consulting party. If an Environmental Impact Statement is prepared in the future, you will be listed as a consulting party. However, a Finding of No Significant Impact will be declared on the *Kahului Commercial Harbor 2025 Master Plan Environmental Assessment* (EA) and no EIS will be required.
2. Regarding your comment on the alien species issue. The measures for the inspection and prevention of alien species introduction are discussed in the EA Section 4.10.1.4. The Hawaii Department of Agriculture (HDOA), Hawaii Department of Health (HDOH) and other agencies have the responsibility for and jurisdiction over the prevention and mitigation of the introduction of alien species. In addition, the Hawaii Department of Land and Natural Resources (HDLNR), Division of Aquatic Resources (DAR) has jurisdiction over aquatic alien species. DAR's role will be described in the Final EA.

In addition, the following information will also be added to the Final EA.

Alien species can be introduced purposefully or incidentally, such as by hitchhiking on cargo or as stowaways in the containers. Therefore, many of the alien pest species hitchhike on commodities imported by businesses and residents of Maui County. This is shown in the results from the Kahului Airport Risk Assessment, which indicates that the passengers are typically a low risk pathway for the importation of alien species. The high-risk commodities for the

importation of alien pest species includes plants and propagative plant parts. Other high-risk commodities include organic produce, leafy greens (such as lettuce, cabbage and kale), cut flowers, strawberries, and peppers. Other high-risk commodities, which enter through the Harbor, include Christmas trees and other plant material.

Once an alien species is established on one island it is highly likely to spread to other islands, especially seeds and flying insects. The interisland dispersal pathways include, but are not limited to, seeds carried by birds, migration of birds, dispersal by wind and dispersal by ocean currents.

The HDOA has designated Kahului as a limited port-of-entry for overseas agricultural commodities, therefore only plants and plant products such as produce and cut flowers are allowed entry. Live animals (except live seafood for consumption) and microorganisms from foreign and domestic origins are not allowed entry through Kahului unless inspected by HDOA in Honolulu prior to the transport to Kahului.

Therefore, pursuant to the HRS, Section 150A-5 any person transporting any agricultural commodity to Hawaii shall notify the HDOA and hold the commodity on the dock, pier, wharf, airport, air terminal where they are first received or discharged until inspection can be made by the Plant Quarantine Inspector. However, because there has always been a shortage of space at the piers, transportation companies have been requesting more inspections to be done at sites other than the dock or at the dock but before or after regular work time to allow for the containers to be moved from the docks. For the maritime operations, the shippers will reimburse the State for the inspector's cost to inspect the containers during overtime hours.

Although HDOA manpower is limited at other ports, the addition of DOT funded agricultural inspectors at Kahului Airport allows the non-Airport inspectors to work more hours at the Harbor to perform the necessary inspections. In addition, there are more inspectors to work overtime hours to inspect the incoming maritime commodities, if necessary.

Similarly, propagative agricultural commodities cannot move between islands without HDOA inspection. If this cargo is not inspected by HDOA, Young Brothers will not allow the cargo to be boarded onto the vessel. Non-propagative plant parts, such as cut flowers, fruits, vegetables and produce, need not be inspected provided that they are subject to random inspection by HDOA.



Similarly, Hawaii Superferry is currently working on the HDOA requirements for their operations with HDOA and has included the following measures in their Tariff No. 1

- *“Domestic cats and dogs **ONLY** may travel on Carrier’s [“Superferry”] vessels. No other animals are permitted except livestock and poultry from Hawaii Department of Agriculture (HDOA) licensed agricultural producers. Carrier does not permit the carriage of reptiles, snakes, birds (except HDOA registered poultry transported by registered growers), rodents or exotic species of animals of any kind.*
  - *Only plants, flowers and crops that have either been inspected and passed at the HDOA Plant Quarantine Office or via the Nursery Self Certification Program may be transported on Carrier’s [“Superferry”] vessel. In all cases, a “Passed” sticker must be shown before plants will be allowed on the ferry. No other plants will be permitted on the ferry and must be left for destruction by Carrier’s [“Superferry”] personnel.*
3. Regarding your comment on Maui’s “ice” drug problem. The “ice” drug epidemic is a serious concern for the entire State of Hawaii. However, the proposed improvements will not increase the amount of drugs coming in to or out of Maui.
4. Regarding the request for a study of expected growth impacts from the expected increase in visitor traffic, infrastructure impacts, etc. As stated in the EA Section 4.5.2:

The forecast demand predicts an increase in vessel size and frequency-of-call will rise with or without this project.

In addition, the EA states that there will be no significant impact on social and economic impacts due to the proposed improvements.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my Planning Staff at 587-2503.

Very truly yours,

  
✓ RODNEY K. HARAGA  
Director of Transportation



# FRAMPTON & WARD, LLC

Real Estate Consulting • Development • Project Management

33 Lono Ave., Suite 450A  
Kahului, HI 96732

Office (808) 893-2300  
Fax (808) 893-0043

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September 8, 2004

Mr. Brian Ishii  
Edward K. Noda and Associates, Inc.  
615 Piikoi Street, Suite 300  
Honolulu, HI 96814

EKNA SERVICES, INC.

Re: Kahului Commercial Harbor 2025 Master Plan, Draft Environmental Assessment

Dear Mr. Ishii,

I am a member of the Hawaiian Canoe Club and the acting Treasurer on the Board of Directors. I have reviewed the Draft Environmental Assessment referenced above. Additionally, I have reviewed a letter forwarded to you by Mr. Rory Frampton on September 7, 2004.

I am in agreement with the concerns raised by Mr. Frampton in his letter and want to stress that this Draft Environmental Assessment does not properly address cultural related impacts including the Hawaiian Canoe Club and all its related activities. Given these concerns, I would like to request that the Department of Transportation Harbors Division meet with Board of Directors of Hawaiian Canoe Club and Na Kai Ewalu Canoe Club to discuss concerns on implications on these cultural activities. Conclusions from such discussions should be further documented within a) the Draft Environmental Assessment and b) a written agreement describing how the improvements will affect the activities of these extensive educational and cultural programs for youths and adults at the canoe clubs.

I am forwarding this letter on September 8<sup>th</sup> under the deadline documented in the facsimile from Iris Thompson to Dean Frampton on September 1, 2004.

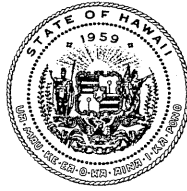
Sincerely,



David Ward

Cc: OEQC





STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
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BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7819.05

November 14, 2005

Mr. David Ward  
Frampton & Ward LLC  
33 Lono Avenue, Suite 450A  
Kahului, Hawaii 96732

Dear Mr. Ward:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comment on the subject document dated September 8, 2004. We offer the following responses.

Regarding your comment on cultural related impacts. We respectfully disagree with your opinion. The cultural impacts were properly addressed in the *Kahului Commercial Harbor 2025 Master Plan Draft Environmental Assessment*, Sections 4.9 and 4.21 and Appendix B, and will not be modified.

We have met with the Hawaiian Canoe Club and Na Kai Ewalu Canoe Club representatives. While the Harbors Division and the canoe clubs have not been able to resolve the conflicts between critical maritime requirements and recreational activities, the Harbors Division will be removing the Pier 2C development from the proposed project and will not be constructing Pier 2C at this time. In regards to the memorandum of understanding, the Harbors Division's authority under Hawaii Revised Statutes (HRS) Chapter 266 is for the commercial use of its facilities. HRS Chapter 266-1 states:

for the purpose of this chapter, "commercial harbor" means a harbor or off-shore mooring facility which is primarily for the movement of commercial cargo, passenger and fishing vessels entering, leaving, or traveling within the State, and facilities and supporting services for loading, off-loading, and handling of cargo, passengers and vessels.

The Harbors Division's statutory authority does not extend to recreational activities and recreational use of its commercial harbors.

Mr. David Ward  
Page 2  
November 14, 2005

HAR-EP 7819.05

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at 587-2503.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Rodney K. Haraga', written over the printed name.

✓ RODNEY K. HARAGA  
Director of Transportation

Dean Kimo Frampton  
1581 Piipholo Road  
Makawao Hi 96768

Brian Ishii  
Edward K. Noda & Associates, Inc.  
615 Oiikoi Street, Suite 300  
Honolulu Hi 96814

Re: Kahului Commercial Harbor 2025 Master Plan, Draft Environmental Assessment

Dear Mr. Ishii:

I am a member of Hawaiian Canoe Club and have been for the last 16 years. I am writing to you to express my concern regarding the recently published Draft Environmental Assessment (EA) regarding the subject project.

First and foremost, I feel the EA is lacking in terms of its cultural impact assessment. Although the Archaeological and Cultural Impact Assessment is very well laid out and has an excellent historical background, it does not take into account the magnitude that the harbor expansion project will have on the canoe paddling community of Maui.

I am aware that other members of Hawaiian Canoe Club are writing you to express their concerns. As such, I will briefly note that hundreds of local paddlers utilize the harbor as a practice and racing facility. Based on Section 12 of the Administrative Rules, Title 11, Chapter 200, "Environmental Impact Statement Rules" a project has to be reviewed in the context of its possible *Irrevocable Commitment to Loss or Destruction of Natural or Cultural Resources*. In its review, the EA (page 33) states that "development of Pier 2C will have an impact on two or three canoe lanes. This reduction of the racing lanes may require that the regattas be moved to Saturdays and Sundays. However, this impact is considered to be an insignificant impact to the canoe facility." I disagree with this assumption. The practice of canoe paddling goes beyond racing Saturdays and Sundays.

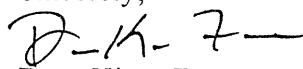
Further, Appendix B includes a long and extensive list of individuals contacted for the study. I would like to ask that the CIA be revised to include ALL transcripts of completed interviews. Specifically, those discussions held with individuals associated with the Kahului based canoe clubs. This would assist in the adequate assessment of the project's potential impacts on the canoe paddling community. Bottom line, the addition of Pier 2C will adversely affect a cultural and traditional practice. It is imperative that the Kahului canoe clubs, as well as fisherman, be included in a Memorandum of Agreement (MOA) with the State of Hawaii DOT.

Finally, on a separate note, I question why the State of Hawaii Department of Transportation and your office did not elect to complete a Traffic Impact Analysis Report (TIAR) for the proposed project. On page 46, the EA states that, "The Pier 2C development be used for ferry operations and cruise ship operations." As stated recently in the Honolulu Advertiser (Friday, June 4, 2004), the proposed interisland ferry would be capable of transporting 900 passengers and 280 vehicles. The EA states that the ferry traffic would operate at non-peak hours and would therefore result in "no adverse impacts". Further, the EA cites prior TIAR's, completed in 1995, 1997 and 2000. Based on the outdated information, the no effect contention is a baseless assumption and cannot be substantiated without due processing and review of a project specific TIAR.

Finally, I would like to state that I am not opposed to the need for improvements to Kahului Harbor and to the proposed inter-island ferry. However, to properly assess the project's potential impact, an adequate EA must include a proper cultural impact assessment and an adequate TIAR. To properly mitigate the potential impacts to canoe paddling in Kahului Harbor, the Kahului canoe clubs must be included in a MOA.

Thank you very much for your time and attention in this matter. Should you have any questions or require additional information, please do not hesitate to contact me at 893-2300.

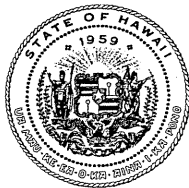
Sincerely,

A handwritten signature in dark ink, appearing to read "D-K-F", followed by a horizontal line.

Dean Kimo Frampton

c: Diane Ho, President, Hawaiian Canoe Club  
Iris Ishida, Department of Transportation  
Office of Environmental Quality Control





**STATE OF HAWAII**  
**DEPARTMENT OF TRANSPORTATION**  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
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BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7820.05

November 14, 2005

Mr. Dean Kimo Frampton  
1581 Piipholo Road  
Makawao, Hawaii 96768

Dear Mr. Frampton:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comment on the subject document. We offer the following responses.

1. Regarding your comment about the above document lacking a cultural impact assessment on the canoe paddling community. We respectfully disagree with your opinion. The cultural impacts were properly addressed in the Environmental Assessment (EA) Sections 4.9 and 4.21, and Appendix B. Therefore, there will be no additional modifications to these sections of the EA.
2. Regarding your concern about impacts related to the construction of Pier 2C. The Pier 2C improvements will not be constructed under this EA and has been withdrawn from the proposed project.
3. Regarding your inquiry about the memorandum of agreement. The Harbors Division's authority under Hawaii Revised Statutes (HRS) Chapter 266 is for the commercial use of its facilities. HRS Chapter 266-1 states:

for the purpose of this chapter, "commercial harbor" means a harbor or off-shore mooring facility which is primarily for the movement of commercial cargo, passenger and fishing vessels entering, leaving, or traveling within the State, and facilities and supporting services for loading, off-loading, and handling of cargo, passengers and vessels.

The Harbors Division's statutory authority does not extend to recreational activities and recreational use of its commercial harbors.

Mr. Dean Kimo Frampton  
Page 2  
November 14, 2005

HAR-EP 7820.05

4. Regarding your comment about completing a Traffic Impact Analysis Report (TIAR). The proposed improvements are not expected increase traffic when compared to the No-action Alternative and therefore, a formal TIAR is not required. The traffic impacts associated with the proposed improvements are discussed in the EA Section 4.22.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at (808) 587-2503.

Very truly yours,



RODNEY K. HARAGA  
Director of Transportation

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SEP 07 2004

RE: EA for Kahului Commercial Harbor Improvements Attention: Iris Ishii

Dick Mayer  
1111 Lower Kiimo Drive  
Kula, Maui, HI 96790  
Tel: (808) 878-1874

EKNA SERVICES, INC.

Email: [dickmayer@earthlink.net](mailto:dickmayer@earthlink.net)

September 7, 2004

Department of Transportation  
Harbor Division  
79 South Nimitz Highway  
Honolulu, Hawai'i 96813

**RE: Kahului Commercial Harbor Improvements**

With regard to the Draft EA, I wish to enter on the record the following recommendations and ask the following questions that I expect will be answered in the final and complete E.I.S.

**1) REQUIRED: An overall E.I.S for all changes proposed in the "Kahului Commercial Harbor 2025 Master Plan"**

These "short-term projects" are being recommended as part of the comprehensive Kahului Commercial 2025 Master Plan. Since it is not legal for a larger project to avoid the preparation of an EIS by being subdivided into a number of smaller projects, therefore it is incumbent upon the Department of Transportation to **FIRST prepare an overall E.I.S for all the proposed changes in the "Kahului Commercial Harbor 2025 Master Plan"**.

**2) Alien species threat and the mechanisms to eliminate that threat.**

Given the serious and long-standing concerns and the many questions that have been expressed by the Maui community, including the Haleakala National Park, the farmer associations and individual farmers (both organic and chemical), the plantations, and many others, it seems absolutely essential that **a comprehensive EIS be prepared to establish the actual alien species threat and the mechanisms to eliminate that threat when the harbor improvements are made.**

**3) Interaction among different ship and land traffic modalities**

Because the Kahului Harbor improvements will coincide and interact with existing barge shipping, the large tour boats, plus the arrivals and departures of the new Super-Ferry, there is a strong need to study (in a **comprehensive E.I.S,**) the inter-related impacts on harbor traffic, road traffic in and near the harbor, freight from and to the barges, fuel deliveries, etc

**4) Homeland Security Implications**

Given the potential threats to homeland security, the E.I.S. should review the additional security threats posed by the increased traffic that will be permitted by these projects

cc: O.E.Q.C. ; and Maui County Department of Planning  
Consultant: Mr. Brian Ishii, Edward K. Noda & Associates, Inc





STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7821.05

November 14, 2005

Mr. Dick Mayer  
1111 Lower Kimo Drive  
Kula, Hawaii 96790

Dear Mr. Mayer:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comment on the subject document dated September 7, 2004. We offer the following responses.

1. Regarding your comment on the need for an Environmental Impact Statement (EIS). Under the Hawaii Revised Statutes, Chapter 343, an EIS is required if there is a significant impact to the environment by a proposed project. The studies and analyses conducted for the *Kahului Commercial Harbor 2025 Master Plan Environmental Assessment* (EA) do not indicate that the proposed projects will create any significant impacts, therefore, a Finding of No Significant Impact will be determined in the Final EA and no EIS will be required.
2. Regarding your comment on the segmentation issue. As stated in the EA Section 3.4, the intermediate and long-term projects are not reasonably foreseeable nor ripe for decision making. These projects are therefore not considered in the EA. The Hawaii Administrative Rules Section 11-200-7, defines the circumstances under which a group of actions proposed by an agency shall be treated as a single action:
  - The component actions are independent of each other and do not represent a larger total undertaking;
  - The individual projects are not necessarily precedent to the larger project;
  - The individual projects are not a commitment to a larger project; and
  - The individual actions are not essentially identical.

Therefore, we disagree with the commentator's opinion and we are not segmenting a larger project to avoid preparation of an EIS, as the short-term, intermediate and long-term projects meet the above conditions.

3. Regarding your comment on alien species. The alien species issue is discussed in EA Section 4.10.1.4. As stated in the EA, the jurisdiction of the prevention of alien species is with other state and federal agencies. In addition, the proposed improvements are not expected to increase the number of alien species and the combined efforts of the State Departments of Agriculture, Health, Land & Natural Resources should serve to control the introduction of alien species. The introduction of alien species will continue with or without the proposed project and therefore, the proposed project will have no significant impact and no mitigation measures are required.
4. Regarding your comment on interaction among different ship and land traffic modalities. The Surface Transportation impacts are presented in the EA Section 4.22.
5. Regarding your comment on homeland security implications. The proposed improvements will not have a significant impact on security as stated in the Draft EA Section 4.18. The following will be included in the Final EA.

The "Superferry" is required by law (33 Code of Federal Regulations) to develop, implement and maintain a Hawaii Superferry Vessel Security Plan that is submitted to and approved by the U.S. Coast Guard. The Hawaii Superferry Vessel Security Plan must include the Superferry's security personnel, training, drills and exercises, record keeping, Maritime Security Level coordination and implementation, procedures for interfacing with terminal facility security, Declaration of Security, security systems and equipment maintenance, security measures for access control (including screening of vehicles and passengers), security measures for restricted areas, security measures for handling cargo, security measures for delivery of stores and bunkers, security measures for monitoring, security incident procedures, etc. The U.S. Coast Guard will monitor and enforce the security requirements of the Hawaii Superferry Vessel Security Plan. Whenever required, the Hawaii Superferry and the U.S. Coast Guard will request the assistance of the Maui Police Department, the State Department of Public Safety Sheriff Division, the Federal Bureau of Investigation, the State Department of Defense, the State Department of Land & Natural Resources Enforcement Officers and the Department of the State Attorney General.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at (808) 587-2503.

Very truly yours,

  
RODNEY K. HARAGA  
Director of Transportation

Smith Builders  
7365 Kula Highway  
Kula, Hawaii 96790

Dear Sirs:

Just a quick note on the Kahului Harbor & the Canoe Clubs that use it.

At present there are two canoe clubs - Hawaiian Canoe Club and Na Kai Ewalu. At this time, Hawaiian Canoe Club has over 300 members - most under the age of 18 yrs. Hawaiian Canoe Club is also used by the MIL. During the school year to train High School paddlers. Na Kai's facility is also used in the same way. They have over 100 paddlers.

Also during the summer H.C.C. is used as a summer fun program that teaches Hawaiian culture (language, hula, paddling).

To sum up it would be devastating to lose the use of the Harbor as a training ground for the kids' program and the adults' program as there is no other alternative at this time.

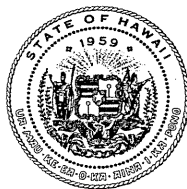
Aloha & Mahalo,

DUDLEY, CAROL & CHRIS

|                   |                    |   |
|-------------------|--------------------|---|
| Dudley Smith      | Cell (808)283-8246 | Email: <a href="mailto:dudley@maui.net">dudley@maui.net</a>         |
| Christopher Smith | Cell (808)357-3850 | Email: <a href="mailto:csmaui@hushmail.com">csmaui@hushmail.com</a> |

LIC #BC12812

LINDA LINGLE  
GOVERNOR



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7822.05

November 14, 2005

Dudley, Carol and Chris Smith  
Smith Builders  
7365 Kula Highway  
Kula, Hawaii 96790

Dear Dudley, Carol and Chris Smith:


Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comment on the subject document. We offer the following responses.

Regarding your concern about the impact of the proposed improvements to canoe organizations. The Pier 2C improvements that could have impacted the canoe lanes has been removed from the proposed project and will not be constructed under the *Kahului Commercial Harbor 2025 Master Plan Environmental Assessment*.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at 587-2503.

Very truly yours,

  
RODNEY K. HARAGA  
Director of Transportation



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C:BT

SEP 09 2004

To Whom It May Concern,

EKNA SERVICES, INC.

This is in response to the information gathered regarding the expansion of Kahului Harbor. I feel that this expansion demands that an Environmental Impact Study be completed prior to the State allowing the powers that be to further dredge the harbor, install another pier, etc.

I am a recreational paddler and a teacher of children involved at Hawaiian Canoe Club on Maui. Please stop your plans for Pier 2C and redraw a better proposal that will not negatively impact the people that use Kahului Harbor everyday.

It would be a shame to take away something held so dear to people all over the island.

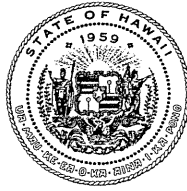
The loss of self esteem amongst the kids would be a travesty.

Thank you for your time with this urgent matter.

Aloha,

*Emalia A Brown*

Emalia Brown  
Seabury Hall Teacher  
Hawaiian Canoe Club Paddler  
MIL Paddling Coach  
8 Meha Place, Paia, HI, 96779



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7823.05

November 14, 2005

Ms. Emalia Brown  
8 Meha Place  
Paia, Hawaii 96779

Dear Brown:

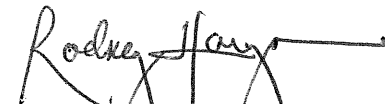
Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comment on the subject document. We offer the following responses.

1. Regarding your comment on the need for an Environmental Impact Statement (EIS). Under the Hawaii Revised Statutes, Chapter 343, an EIS is required if there is a significant impact to the environment by a proposed project. The studies and analyses conducted for the *Kahului Commercial Harbor 2025 Master Plan Environmental Assessment* (EA) concluded that the proposed projects will not create any significant impacts, therefore, a Finding of No Significant Impact will be determined in the Final EA and no EIS will be required.
2. Regarding your concern about impacts related to the construction of Pier 2C. The Pier 2C improvements will not be constructed under this EA and has been withdrawn from the proposed project.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at 587-2503.

Very truly yours,

  
RODNEY K. HARAGA  
Director of Transportation

Frank Gummich  
166 Apuwai Street  
Haiku HI 96708  
Phone: 808 575-5172  
Fax: 808 575-5452

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SEP 09 2004

EKNA SERVICES, INC.

Attn: Brian Ishii  
Noda & Associates  
615 Piikoi Street Suite 300  
Honolulu Hawaii 96814

Ref: Construction of Pier C2

Dear Mr. Ishii

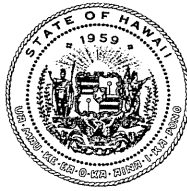
As a long time canoe paddler and surfer I have spent countless hours inside the Kahului Harbor. The excitement about the new ferry connection between Maui and Oahu soon faded into disbelief after being informed that the State of Hawaii is planning to extend the Pier inside the already crowded Harbor. As a result of the construction the canoe clubs would have to close their operation and try to find a new location which seems almost impossible. Not only do the members of the canoe club spend a lot of time practicing inside the Kahului Harbor, most of the senior members are actively involved in bringing Maui's youth together for after school activities centering around the ancient Hawaiian sport of Canoe Paddling. Due to often difficult family environments and lack of supervision many of those kids might otherwise be exposed to dangerous and questionable activities. Quite often those kids end up taking drugs.

Please consider this when pursuing with your plans to extend the pier inside the harbor.  
EXTEND IT OUTSIDE THE EXISTING HARBOR AND PLAN FOR THE FUTURE

Aloha

Frank Gummich





**STATE OF HAWAII**  
**DEPARTMENT OF TRANSPORTATION**  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7824.05

November 10, 2005

Mr. Frank Gummich  
166 Apuwai Street  
Haiku, Hawaii 96708

Dear Mr. Gummich:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments on the subject document. We offer the following responses.

Regarding your concern about impacts related to the construction of Pier 2C. The Pier 2C improvements will not be constructed under this Environmental Assessment and have been withdrawn from the proposed project.

Regarding your suggestion about a second harbor concept. The U.S. Army Corps of Engineers performed a study for a second commercial harbor facility on Maui in 1995 titled the *Maui Second Commercial Harbor, Navigation Study*. The study identified six alternatives and concluded that the second harbor would not have an adequate benefit-to-cost (B/C) ratio to justify costs of developing the facility. In addition, the construction of a second harbor will take decades to complete and will have significant environmental impacts. In fact, the study concluded:

Based on the July 1990 biological opinion, a proposed commercial harbor development in west Maui is likely to result in a jeopardy opinion<sup>1</sup> from NMFS [National Marine Fisheries Service].

Therefore, a second harbor is not considered a reasonable and feasible alternative and no further analysis will be conducted in this environmental assessment. In addition, the second harbor alternative does not meet the purpose of the project, as:

---

<sup>1</sup> A jeopardy opinion means that the project will jeopardize the continued existence of an endangered species.

- it does not facilitate [in the short-term] maritime shipments of the essential commodities required by Maui County;
- it does not optimize the utilization of land and water resources committed to marine cargo and passenger operations in an economically responsible manner; and
- it does not minimize the impact on environmental quality and recreational opportunities contiguous with the Harbor.

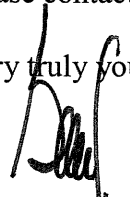
The computed benefit-to-cost (b/c) analysis results from the second harbor study will be included in the Final EA and include the impact of a 23-day and 39-day closure of the existing Kahului Harbor. The summary table is as follows:

**TABLE 3-3  
BENEFIT-TO-COST RESULTS FOR SECOND MAUI HARBOR**

| SITE                         | B/C WITH 23-<br>DAY<br>CLOSURE | B/C WITH 39-<br>DAY<br>CLOSURE |
|------------------------------|--------------------------------|--------------------------------|
| Hata Bay Breakwater Harbor   | 0.08                           | 0.16                           |
| Maalaea Pier                 | 0.38                           | 0.50                           |
| Ukumehame Pier               | 0.50                           | 0.71                           |
| Olowalu Pier                 | 0.50                           | 0.71                           |
| Olowalu Dock & Turning Basin | 0.39                           | 0.56                           |
| Olowalu Dredged Harbor       | 0.27                           | 0.38                           |

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at 587-2503.

Very truly yours,

  
L RODNEY K. HARAGA  
Director of Transportation

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SEP 07 2004

EKNA SERVICES, INC.

Greg and Melissa Westcott  
PO Box 869  
Ha'ikū Maui Hawaii 96708

Sept 7, 2004

Mr. Brian Ishii  
E.K. Noda Inc.  
615 Piikoi St Suite 300  
Honolulu 96814  
Fax 593 8551

Subject: Environmental Assessment  
Kahului Harbor

We are commenting on this Environmental Assessment as full time farmers, concerned citizens of Maui and Surfer.

These comments are hurried and handwritten. We have had the EA for over one day while the businesses and government agencies consulted have had the document for two years.

There has been no public participation

The contract to prepare this document (no bid?) was awarded by the Cayetano administration while E.K. Noda was making illegal false name contributions to Gov. Cayetano and others. See the attached Star-Bulletin article.

Under these circumstances the public may reasonably question the ability of E.K. Noda to prepare an unbiased and critical examination of these major DOT projects.

The convicted criminals at E.K. Noda should be replaced by a reputable firm.

This DEA prepared by E.K. Noda is an inadequate, incomplete and uncritical examination of these projects.



The most obvious omission is the failure to examine the threat of Alien species posed by these projects.

For the Kahului Airport EIS, Mr. Brian Ishii and E.K. Noda Inc. refused to address the issue of alien species, and refused to allow Haleakalā National Park to participate as a consulting agency. The President's Council on Environmental Quality ruled otherwise and the Alien Species Action Plan was formed.

Mr. Ishii was paid to coordinate ASAP meetings and E.K. Noda prepared the Initial Pest Risk Management Assessment for Kahului Airport.

Mr. Ishii knows full well about the alien species invasion of Hawaii and the grave threat it poses

to the environment, the economy and the well being of Hawaii's people.

He knows that a rigorous Risk Assessment is a fundamental to projects of this magnitude.

His failure to address the threat of alien species can only be deliberate. Additionally, agencies directly involved in this issue including: HDOA, USDA, USFWS, USGS and Haleakala National Park, were not consulted.

Harbors are acknowledged to be major pathways for alien species. These projects will accommodate more ships from more points of origin and the risk to the marine and land environments including Kaula Pond Wildlife Sanctuary must be assessed.

This document is guilty of segmenting by failing to acknowledge that the 800 ft lengthening of Pier 2, the 10,000 sq. ft. terminal and the roadway to Pūnēnē Ave. are part of a state wide ferry system. Similar projects are planned for Lāhainā, Nānīliwili, Kona, Hilo and Honolulu. All these projects must be examined as a whole in a separate EIS.

A state wide ferry system already has momentum - the ships are under construction - yet many critical questions are unanswered.

How many cars will arrive at one time?

How will they affect traffic in Kahului?

How will vehicles be inspected?

Will vehicles from high risk areas be allowed on the ferry?

Besides accomodating a new state wide ferry system, these projects will allow for a substantial increase in barge, cargo and cruise ship traffic.

These increases remain unexamined and again reasonable questions are unanswered.

Modern cruise ships are in effect - floating cities with as many as 3,000 passengers. They generate enormous quantities of trash, sewage, sewage sludge, grey water, oily bilge water and air pollution.

A real examination would quantify these impacts.

How much do these projects cost and who is paying?

Kahului Harbor is one of our favorite surf spots. On good days, with a north swell and light winds a beautiful fast wave breaks all the way across the harbor, filled with body boards, short and long boards and surf canoes. The break nearest the harbor mouth is the most consistent and always full of kids from Kahului. Outside the harbor mouth, to the east is the magnificent break called Pier One. Along the west side of the west breakwater is the challenging body board spot - Ledges. A short distance to the west, at Paekūkalo is the world famous - Big Lefts.

What will the dredging of the harbor and new break walls do to these beloved surf spots and the life that goes with them.

Nasako Westcott Jeff Westcott



# Starbulletin.com

Saturday, August 2, 2003

## Engineering firm faces record fine over donations

**The company's fine of \$74,000  
is the largest since  
a \$64,000 fine in 2002**

By Rick Daysog  
rdaysog@starbulletin.com

A local engineering firm has agreed to pay a record \$74,000 fine for making illegal campaign contributions to Honolulu Mayor Jeremy Harris, former Gov. Ben Cayetano and ex-Lt. Gov. Mazie Hirono.

The fine is one of several against state and city contractors totaling more than \$130,000 set to be approved by the state Campaign Spending Commission board on Thursday.

The commission is levying the record penalty to Edward K. Noda & Associates for making more than \$100,000 in excessive campaign contributions and false-name donations from 1996 though 2001.

Local engineer Randolph Murayama agreed to pay a \$48,000 fine, the accounting firm of Grant Thornton LLP will pay \$16,000 and the Maui firm of Tanaka Engineers Inc. agreed to a \$1,000 settlement.

Noda's civil penalty tops the previous record of \$64,000, levied against the local engineering firm of Geolabs Inc. in January 2002.

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It also comes a month after the firm's namesake, Edward Noda, was arrested by Honolulu police on suspicion of money laundering and making campaign contributions under false names.

Bob Watada, the commission's executive director, said the company is being hit with the stiff penalty because it did not cooperate with his office's investigation.

He said that several donors linked to the engineering firm initially told the commission's investigators that they were not reimbursed by Edward K. Noda & Associates even though bank records subpoenaed by the investigators indicated otherwise.

Watada said the commission initially agreed to fine the company \$53,000 in March but supplemented the fine after finding additional illegal contributions.

In the latest tally, the commission's investigators found that the firm's employees and relatives contributed \$48,750 to the Harris campaign and \$41,000 to the Cayetano campaign.

Workers at Edward K. Noda & Associates and their relatives also contributed \$25,000 to Hirono's campaign.

Under state law a business or individuals can give no more than \$4,000 to a mayoral candidate and \$6,000 to candidate for governor or lieutenant governor during a four-year election cycle. They also are prohibited from making political donations under false names.

Since 2001 the commission has issued more than half a million dollars in fines against more than five dozen city and state contractors for making illegal campaign contributions.

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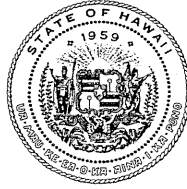
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869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7825.05

November 14, 2005

Mr. & Mrs. Greg and Masako Westcott  
P.O. Box 869  
Haiku, Hawaii 96708

Dear Mr. & Mrs. Westcott:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments on the subject document dated September 7, 2004. We offer the following responses.

1. Regarding your concern about a lack of public participation. Pursuant to the Hawaii Revised Statutes (HRS) Chapter 343, the Harbors Division conducted pre-consultation, including letters and discussions, and those agencies and organizations contacted are presented in the *Kahului Commercial Harbor 2025 Master Plan Environmental Assessment* (EA) Section 8.1. HRS Chapter 343, however, does not require public meetings for an environmental assessment. In addition, during the master planning process, the Harbors Division coordinated and conducted numerous meetings with all concerned agencies and organizations, including the Kahului canoe clubs.
2. Regarding your comment on the alien species issue. The measures for the control of alien species introduction are discussed in the EA Section 4.10.1.4. The Hawaii Department of Agriculture (HDOA), Hawaii Department of Health (HDOH) and other agencies have the responsibility for and jurisdiction over the prevention and mitigation of the introduction of alien species. In addition, the Hawaii Department of Land and Natural Resources (HDLNR), Division of Aquatic Resources (DAR) has jurisdiction over aquatic alien species. DAR's role will be discussed in the Final EA.

In addition, the following information will also be added to the Final EA.

Alien species can be introduced purposefully or incidentally, such as by hitchhiking on cargo or as stowaways in the containers. Therefore, many of the alien pest species hitchhike on commodities imported by businesses and residents of Maui County. This is shown in the results from the Kahului Airport Risk

Assessment, which indicates that the passengers are typically a low risk pathway for the importation of alien species. The high risk commodities for the importation of alien pest species include plants and propagative plant parts. Other high risk commodities include organic produce, leafy greens (such as lettuce, cabbage and kale), cut flowers, strawberries, and peppers. Other high risk commodities which enter through the Harbor include Christmas trees and other plant material.

Once an alien species is established on one island it is highly likely to spread to other islands, especially seeds and flying insects. The interisland dispersal pathways include, but are not limited to, seeds carried by birds, migration of birds, dispersal by wind and dispersal by ocean currents.

The HDOA has designated Kahului as a limited port-of-entry for overseas agricultural commodities, therefore only plants and plant products such as produce and cut-flowers are allowed entry. Live animals (except live seafood for consumption) and microorganisms from foreign and domestic origins are not allowed entry through Kahului unless inspected by HDOA in Honolulu prior to the transport to Kahului.

Therefore, pursuant to the HRS, Section 150A-5 any person transporting any agricultural commodity to Hawaii shall notify the HDOA and hold the commodity on the dock, pier, wharf, airport, air terminal where they are first received or discharged until inspection can be made by the Plant Quarantine Inspector. However, because there has always been a shortage of space at the piers, transportation companies have been requesting more inspections to be done at sites other than the dock or at the dock but before or after regular work time to allow for the containers to be moved from the docks. For the maritime operations, the shippers will reimburse the State for the inspector's cost to inspect the containers during overtime hours.

Although HDOA manpower is limited at other ports, the addition of DOT funded agricultural inspectors at Kahului Airport allows the non-Airport inspectors to work more hours at the Harbor to perform the necessary inspections. In addition, there are more inspectors to work overtime hours to inspect the incoming maritime commodities, if necessary.

Similarly, propagative agricultural commodities cannot move between islands without HDOA inspection. If this cargo is not inspected by HDOA, Young Brothers will not allow the cargo to be boarded onto the vessel. Non-propagative plant parts, such as cut flowers, fruits, vegetables and produce, need not be inspected provided that they are subject to random inspection by HDOA.

Similarly, Hawaii Superferry is currently working on the HDOA requirements for their operations with HDOA and has included the following measures in their Tariff No. 1.

- *“Domestic cats and dogs **ONLY** may travel on Carrier’s [“Superferry”] vessels. No other animals are permitted except livestock and poultry from Hawaii Department of Agriculture (HDOA) licensed agricultural producers. Carrier does not permit the carriage of reptiles, snakes, birds (except HDOA registered poultry transported by registered growers), rodents or exotic species of animals of any kind.*
  - *Only plants, flowers and crops that have either been inspected and passed at the HDOA Plant Quarantine Office or via the Nursery Self Certification Program may be transported on Carrier’s [“Superferry”] vessel. In all cases, a “Passed” sticker must be shown before plants will be allowed on the ferry. No other plants will be permitted on the ferry and must be left for destruction by Carrier’s [“Superferry”] personnel.”*
3. Regarding your concerns about the impacts related to the construction of Pier 2C and Pu’unene Avenue improvements. The Pier 2C and the Pu’unene Avenue improvements have been withdrawn from the proposed project and will not be constructed under this EA.
  4. Regarding your comment about segmentation of the statewide ferry system. The Superferry will use the existing pier 2 in Kahului Harbor and is not part of the Proposed Project. The improvements required by the Superferry include a loading barge and vehicle ramps. The project to provide the barge and ramps has been declared exempt from the HRS Chapter 343 process. This exemption is included in the Final EA, to assess the potential cumulative environmental impacts of the Superferry. We disagree that there is segmentation of the proposed projects as the proposed projects have independent utility and does not represent or commit the DOT to a larger total undertaking.
  5. Regarding your concern about traffic impacts. The traffic impacts of the proposed improvements are analyzed in the EA Section 4.22. However, as stated above, the Superferry is not part of the proposed project.
  6. Regarding your concern about discharges from cruise ships. The issue of waste disposal from cruise ships is discussed in the EA Section 4.8, and air pollution in the EA Section 4.3. As stated in the EA, the vessels are forecast to use the harbor, with or without the proposed improvements. As far as the discharging of waste, it is illegal to discharge into the harbor. Pursuant to Hawaii Administrative Rules Section 19-42-127, “Littering or

November 14, 2005

polluting of water prohibited,” it is illegal to pollute or discharge either directly or indirectly anything other than clean water into any harbor. The U.S. Coast Guard and the Harbors Division enforce this law. Therefore, there will be no legal dumping and discharge of pollutants in harbor waters due to the maritime demand. There is a spill response team, whose equipment is strategically located within Kahului Harbor, which is trained to respond immediately to spills and coordinate the effort with the U.S. Coast Guard. Also, as stated in EA Section 4.10.1.4, “Alien Pest Species,” the Northwest Cruise Ship Association has entered into a Memorandum of Understanding with the State of Hawaii that prohibits the discharge of wastes within the “Hawaii Marine Areas.”

7. Regarding the cost and funding of the projects. The projects will be funded using State of Hawaii funds, either Special Harbors or General funds. The estimated costs of the various improvements will be stated in the Final EA.
8. Regarding your concerns about the impacts of dredging and Pier 5 improvements. As stated in the EA Section 1.1, the Pier 5 improvements and associated dredging are on indefinite hold and are not a reasonably foreseeable action or ripe for decision making, and therefore, are not part of the proposed project in this EA.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my Harbors planning staff at (808) 587-2503.

Very truly yours,



RODNEY K. HARAGA  
Director of Transportation

September 6, 2004

Brian Ishii  
Noda & Associates  
615 Piikoi Street, Suite 300  
Honolulu, HI, 96814

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SEP 09 2004

EKNA SERVICES, INC.

**Re: draft EA of Kahului Harbor piers project**

My concerns as a paddler and Hawaiian Canoe Club member (based on a cursory scan of the EA and slight reflection):

Family and other obligations make a two day regatta impossible for most race officials, coaches and paddlers who wish to support their club. Besides, shrinking the lanes down will ruin the harbor for most regatta events, besides making it unlikely two clubs could practice on the same day.

This EA does not mention, and thus does not "assess", the impacts of scores of cars backed up along the new pier waiting to be driven onto the ferry. What about an accumulating volume of leaking oil and gas from cars of all ages onto this pier. Shouldn't that be evaluated for impact on water quality?

This EA does not mention, and thus not assess, whether waiting cars for the ferry will emit CO and other exhaust fumes downwind into the remaining canoe lanes, thereby making it an unhealthy place for kids especially.

This EA pretends the ferry service will only use the mauka side of the new Pier 2C. Once constructed won't there be commercial pressure to use both sides, thereby obliterating all canoe lanes, for a turning and docking basin?


This EA does not mention any impact on practice routes by a ferry coming and going through the half of the harbor remaining after Homeland Security took away the eastern half.

The EA does not address the fact tourists like bargains too. Will there be hundreds, or perhaps thousands, of tourists dumping the interisland flight prices to island hop by ferry? Won't they need to rent or park rental cars there? Will this inevitably lead to A & B doing a buildout of all remaining land for parking and rental lots, thus taking away parking used for regattas or even practices?

Is this EA is a segmented piece of a larger master plan? There was another EA on the shelf for the Pier 1C mooring dolphin, which was issued last January and closed-out for comment on 2/23/04. Does this legally avoid an in-depth EIS, by segmenting an overall plan into these so-called discrete projects to try and keep the cumulative impacts under the radar of "significant"?

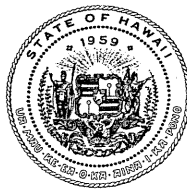
This EA grossly underestimates impacts on the Hawaiian cultural practice of canoe paddling and racing threatened by Pier 2C etc. This EA fails to address obvious impacts which will be significant degradations of the water, air and usefulness of this harbor for recreation and Hawaiian cultural practices. Shouldn't this EA be superseded by an in-depth EIS with the added public hearings required by the EIS procedure?

Sincerely,



Gregory Ball

90 Kapi'i Place, Haiku, HI 96708



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7826.05

November 14, 2005

Mr. Gregory Ball  
90 Kapi'i Place  
Haiku, Hawaii 96708

Dear Mr. Ball:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments on the subject document dated September 6, 2004. We offer the following responses.

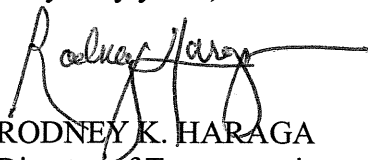
1. Regarding your concern about impacts related to the construction of Pier 2C. The Pier 2C improvements will not be constructed under this Environmental Assessment (EA) and has been withdrawn from the proposed project.
2. Regarding your expressed concerns about impacts from the ferry. The ferry is a user of the Harbor and is able to use the existing piers and/or the new proposed piers. As stated in the Draft EA, the proposed improvements are part of the *Kahului Commercial Harbor 2025 Master Plan* and not designed or planned for the ferry or any other single user. It is illegal to pollute into the harbor. Pursuant to Hawaii Administrative Rules Section 19-42-127, "Littering or polluting of water prohibited," it is illegal to pollute or discharge either directly or indirectly anything other than clean water into any harbor. The U.S. Coast Guard and the Harbors Division enforce this law. Therefore, there will be no legal discharge of pollutants in harbor waters due to the maritime demand. There is a spill response team, whose equipment is strategically located within Kahului Harbor, which is trained to respond immediately to spills and coordinate the effort with the U.S. Coast Guard. Also, as stated in Draft EA Section 4.10.1.4, "Alien Pest Species," the Northwest Cruise Ship Association has entered into a Memorandum of Understanding with the State of Hawaii that prohibits the discharge of wastes within "Hawaii Marine Areas." The findings of the formal analyses for these environmental impacts are stated in the Draft and Final EA Section 4. Please refer to the following sections for information pertinent to your comments.

|               |              |
|---------------|--------------|
| Traffic       | Section 4.22 |
| Water Quality | Section 4.8  |
| Air Quality   | Section 4.3  |

3. Regarding your comments on the segmentation issue. We respectfully disagree that a "piecemeal" or segmented approach is being taken. As stated in the EA Section 3.4, the intermediate and long-term projects are not reasonably foreseeable nor ripe for decision making. These projects are therefore not considered in the Environmental Assessment. The Hawaii Administrative Rules Section 11-200-7, defines the circumstances under which a group of actions proposed by an agency shall be treated as a single action:
  - The component actions are independent of each other and do not represent a larger total undertaking;
  - The individual projects are not necessary precedent to the larger project;
  - The individual projects are not a commitment to a larger project; and
  - The individual actions are not essentially identical.
4. Regarding your comment about the adequacy of the Draft EA. We respectfully disagree on your opinion about the adequacy of the document. Under the Hawaii Revised Statutes (HRS) Chapter 343, an Environmental Impact Statement (EIS) should be prepared if there are significant impacts associated with a Proposed Project. The studies and analyses conducted for the DEA concluded that the proposed projects will not create any significant impacts, therefore, a Finding of No Significant Impact (FONSI) will be declared and no EIS will be required.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at 587-2503.

Very truly yours,



RODNEY K. HARAGA

Director of Transportation



RECEIVED

SEP 09 2004

EKNA SERVICES, INC.

Mary Akiona  
Executive Director  
Hawaiian Canoe Club  
P.O. Box 5053  
Kahului, HI 96733

September 7, 2004

Brian Ishii  
Noda & Associates  
605 Piikoi Street, Ste 300  
Honolulu, Hawaii 96814

Re: Environmental Assessment for Kahului Harbor

Dear Mr. Ishii,

My name is Mary Akiona and I am the Executive Director of Hawaiian Kamali'i, Inc. dba Hawaiian Canoe Club. I have been quoted in your environmental assessment as having stated that the construction of a pier 2C adjoining existing pier 2 will have little effect on the canoe clubs. When I made these statements, I did not realize that this would have such a dramatic effect on the race course, ie the loss of three lanes. It has been suggested that we could run a two day regatta instead of the usual one day. If you have attended a canoe regatta, you would realize the impracticality of such a suggestion. It is absolutely not an alternative. I also did not understand that there would be considerable dredging that will certainly impact the beach fronting our canoe club as well as Na Kai Ewalu Canoe Club. At the time of my statement the present rules in the harbor regarding home land security were not as they are now. With these new rules it would dramatically limit our use of the area around the piers. We are already squeezed in with the present restrictions. On a typical practice day there are over 20 six man outrigger canoes in the water at the same time as well as one man canoes and kayaks.

Our facility is used not only by canoe paddlers but by many other community groups that need a place to meet. We have a hula halau that practices twice a week at our hale. Hui Malama Home School utilizes our facility as one of their sites and with their new Hawaii Outdoor Education program not only use the building but use the canoes and the harbor waters to allow students to experience the Hawaiian cultural practice of outrigger canoe paddling. We run a free Summer Youth Cultural Program that attracts over 150 keiki largely due to the fact that we include outrigger paddling as part of the program. Our numbers would not be what they are without the use of the harbor for canoe paddling. We have partnered with Hui Malama to form a youth center that is open year round from 2 pm until 5 pm, Monday thru Friday. Again the fact that we offer water related activities is what brings the teenagers to our center. The building of this pier and the dredging of the surrounding areas will limit our use of the harbor and destroy the beach which allows safe and easy access to the harbor waters.

We have worked hard to create our facility and our youth programs. The loss of the use of the harbor could drastically reduce our numbers of youth and perhaps mean the end to all that we have worked so hard for. We are able to generate revenue by using our facility and canoes to bring in groups from the mainland as well as other countries to participate in canoe camps. Without use of the harbor and room to paddle, these camps would have to be discontinued. Without our numbers of keiki participating in our programs, we would lose both governmental and private funding which keep our programs and facility afloat. As you can see, it is a snowball effect where one thing leads to another and so on. We want to continue to give the youth of our community a place to come and learn about the Hawaiian culture, canoe paddling, receive tutoring and mentoring and just have a safe place to hang out.

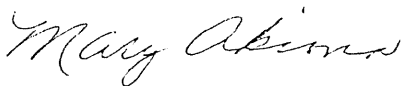
I request that you spend much more time getting input from all the users of the harbor which include our keiki, our partners, our paddlers and the community as a whole.

I have asked the representatives of the DOT these question many times. Do we need a second harbor? If we were to use every space available in the Kahului Harbor regardless of who was displaced, how long would it be until we would be forced to build a second harbor? Why would we spend hundreds of thousands of dollars for a temporary solution, destroying the beach and polluting the waters? You can not put back the beach or estimate the damage done to hundreds of youth who will not have a safe and nurturing place to grow into productive and positive adults.

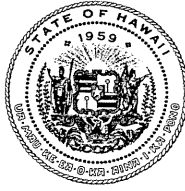
Lastly, when I made these statements, I did not represent the Maui County Hawaiian Canoe Association, the Hawaiian Canoe Club or any other organization. These were my personal statements based on incomplete information in a very informal situation.

I urge you to listen the cries of our Hawaiian ancestors, before you destroy yet another piece of our dear island Maui.

Sincerely,

A handwritten signature in cursive script that reads "Mary Akiona".

Mary Akiona



**STATE OF HAWAII**  
**DEPARTMENT OF TRANSPORTATION**  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7827.05

November 10, 2005

Ms. Mary Akiona  
Executive Director  
Hawaiian Canoe Club  
P.O. Box 5053  
Kahului, Hi 96733

Dear Ms. Akiona:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments on the subject document. We offer the following responses.

1. Regarding your concern about the impact of the construction of Pier 2C adjoining existing Pier 2. The Pier 2C improvements will not be constructed under this Environmental Assessment (EA) and has been withdrawn from the proposed project.

In addition, the conflict between the recreational use of the commercial harbor will increase as the forecast maritime demand increases. Unfortunately, the State of Hawaii Department of Transportation Harbors Division's authority under Hawaii Revised Statutes (HRS) Chapter 266 is for the commercial use of its facilities. HRS Chapter 266-1 states,

for the purpose of this chapter, "commercial harbor" means a harbor or off-shore mooring facility which is primarily for the movement of commercial cargo, passenger and fishing vessels entering, leaving, or traveling within the State, and facilities and supporting services for loading, off-loading, and handling of cargo, passengers and vessels.

The Harbors Division's statutory authority does not extend to recreational activities and recreational use of its commercial harbors

2. Regarding your comment about the need for a second harbor. The U.S. Army Corps of Engineers performed a study for a new commercial harbor facility on Maui in 1995 titled the "*Maui Second Commercial Harbor, Navigation Study*." The study identified six

alternatives and concluded that the new harbor would not have an adequate benefit-to-cost (B/C) ratio to be justified. In addition, the construction of a new harbor will take decades to complete and will have significant environmental impacts. In fact, the study concluded;

Based on the July 1990 biological opinion, a proposed commercial harbor development in west Maui is likely to result in a jeopardy opinion<sup>1</sup> from NMFS [National Marine Fisheries Service].

Therefore a new harbor is not considered a reasonable and feasible alternative and no further analysis will be conducted in this environmental assessment. In addition, the new harbor alternative does not meet the purpose of the project, as:

- it does not facilitate [in the short-term] maritime shipments of the essential commodities required by Maui County;
- it does not optimize the utilization of land and water resources committed to marine cargo and passenger operations in an economically responsible manner; and
- it does not minimize the impact on environmental quality and recreational opportunities contiguous with the Harbor.

The computed benefit-to-cost (b/c) analysis results are shown in Table 3-3 and include the impact of a 23-day and 39-day closure of the existing Kahului Commercial Harbor.

**TABLE 3-3**  
**BENEFIT-TO-COST RESULTS FOR SECOND MAUI HARBOR**

| <b>SITE</b>                  | <b>B/C WITH<br/>23-DAY<br/>CLOSURE</b> | <b>B/C WITH<br/>39-DAY<br/>CLOSURE</b> |
|------------------------------|--|--|
| Hata Bay Breakwater Harbor   | 0.08                                   | 0.16                                   |
| Maalaea Pier                 | 0.38                                   | 0.50                                   |
| Ukumehame Pier               | 0.50                                   | 0.71                                   |
| Olowalu Pier                 | 0.50                                   | 0.71                                   |
| Olowalu Dock & Turning Basin | 0.39                                   | 0.56                                   |
| Olowalu Dredged Harbor       | 0.27                                   | 0.38                                   |

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<sup>1</sup> A jeopardy opinion means that the project will jeopardize the continued existence of an endangered species.

Ms. Mary Akiona  
Page 3  
November 10, 2005

HAR-EP 7827.05

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at (808) 587-2503.

Very truly yours,



RODNEY K. HARAGA  
Director of Transportation



RECEIVED

SEP 09 2004

Brian Ishii, Noda & Associates  
615 Piikoi Street, Suite 300  
Honolulu, HI 96814

EKNA SERVICES, INC.

I am strongly opposed to the planned construction of Pier 2C at Kahului Harbor. The two canoe clubs that utilize this area, Hawaiian Canoe Club and Na Kai Ewalu, have established facilities which host numerous funded youth programs that are conducted year round. Hawaiian Canoe Club alone has a membership of at least 300 paddlers. Half of which are youth. Na Kai Ewalu has significantly less members, but has a youth program which is quickly growing in size and function. On any given training day, one may see up to thirty outrigger canoes using the area where the proposed Pier is planned. This means up to 180 people on the water at one time. Not to mention the fishermen on the beach and along the jetties. If this area is eliminated our area of practice will be severely limited which would greatly increase the risk of collisions on the water.


Each of these two clubs hosts an annual Maui County Canoe Racing Regatta in the harbor area between Pier 2 and Kahului Beach Road. When all nine Maui canoe clubs participate in these regattas, more than a thousand paddlers and spectators line the beach to enjoy the races. Additionally, since the canoe racing season is during the summer, there are often times that the south swells make it impossible to race in Lahaina or Kihei. The only option is Kahului Harbor. It is the only truly protected body of water on the island.

In addition to the County association clubs, there are four high schools that utilize our facilities, equipment, and ocean space. Hawaiian outrigger canoe racing, which has long been the official sport for the State of Hawaii is now an officially sanctioned high school sport. The proposed pier would have a definite impact on the ability to hold practices and regattas thereby affecting the readiness of these schools to compete at the state level.

Also of great concern to me is the environmental impact of the super ferry and increased cruise ship activity. As it now stands, there are days when the cleanliness of the water in Kahului Harbor is very questionable. Increased cruise ship and ferry activity will mean more spills and discharge. Another environmental concern is the vehicular traffic coming off of Puunene Avenue to board the ferry. Will there be a hundred vehicles lined up with engines idling filling the area with exhaust fumes while we practice downwind? Will vehicles from outer islands be able to disembark the ferry uninspected and drive directly into pristine native Hawaiian ecosystems like Haleakala National Park? Will these cruise ships follow regulations in regards to discharging their waste? All of these questions need answering.

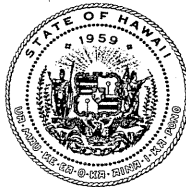
There are many cultural and environmental impacts that concern me. There must be another solution to dealing with the growth of Maui and the demand for more pier space in Kahului Harbor. No matter how much is sacrificed and destroyed in terms of nature and culture, one day soon the harbor will be too small anyway, and another will need to be built. Why place expensive band aids on a sore that will just keep getting bigger? Plan for a new harbor, or for the expansion of the existing harbor while keeping its interior intact. There are hundreds of families, fishermen, divers, surfers, and canoe paddlers that enjoy the harbor as it is. Make a new plan.

Mahalo,

  
Iokepa K. Naeole  
Cultural Director  
Hawaiian Canoe Club







**STATE OF HAWAII**  
**DEPARTMENT OF TRANSPORTATION**  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR  
  
Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7828.05

November 10, 2005

Mr. Iokepa K. Naeole  
Cultural Director  
Hawaiian Canoe Club  
P. O. Box 5053  
Kahului, Hawaii 96733

Dear Mr. Naeole:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments on the subject document. We offer the following response.

1. Regarding your concern about impacts related to the construction of Pier 2C. The Pier 2C improvements will not be constructed under this Environmental Assessment (EA) and have been withdrawn from the proposed project.
2. Regarding your concern about the environmental impact of the Superferry and increased cruise ship activity. As stated in the EA, the vessels are forecast to use the harbor, with or without the proposed improvements. As far as the discharging of waste, it is illegal to discharge into the harbor. Pursuant to Hawaii Administrative Rules Section 19-42-127, "Littering or polluting of water prohibited," it is illegal to pollute or discharge either directly or indirectly anything other than clean water into any harbor. The U.S. Coast Guard and the Harbors Division enforce this law. Therefore, there will be no legal dumping and discharge of pollutants in harbor waters due to the maritime demand. There is a spill response team, whose equipment is strategically located within Kahului Harbor, which is trained to respond immediately to spills and coordinate the effort with the U.S. Coast Guard. Also, as stated in EA Section 4.10.1.4, "Alien Pest Species," the Northwest Cruise Ship Association has entered into a Memorandum of Understanding with the State of Hawaii that prohibits the discharge of wastes within "Hawaii Marine Areas."
3. Regarding your concern about the environmental impact of vehicular traffic coming off of Pu'unene Avenue to board the ferry. As stated above, the Pier 2C and the Pu'unene Avenue improvements will not be constructed under this EA and have been removed from the proposed project.

4. Regarding your inquiry whether vehicles from outer islands will be able to disembark the ferry uninspected and drive directly into pristine native Hawaiian ecosystems like Haleakala National Park. The Superferry is working with the Hawaii Department of Agriculture, who has jurisdiction over the control of alien species, to develop procedures to address the alien species concerns. These procedures are likely to be carried out at the port of origin rather than the destination port.
5. Regarding your suggestion about a second harbor concept. The U.S. Army Corps of Engineers performed a study for a second commercial harbor facility on Maui in 1995 titled the Maui Second Commercial Harbor, Navigation Study. The study identified six alternatives and concluded that the second harbor would not have an adequate benefit-to-cost (B/C) ratio to justify the costs of developing the facility. In addition, the construction of a second harbor will take decades to complete and will incur significant environmental impacts. In fact, the study concluded:

Based on the July 1990 biological opinion, a proposed commercial harbor development in west Maui is likely to result in a jeopardy opinion<sup>1</sup> from NMFS [National Marine Fisheries Service].

Therefore, a second harbor is not considered a reasonable and feasible alternative and no further analysis will be conducted in the EA. The computed benefit-to-cost (b/c) analysis results are shown in the table below and include the impact of a 23-day and 39-day closure of the existing Kahului Harbor.

**TABLE 3-3  
BENEFIT-TO-COST RESULTS FOR SECOND MAUI HARBOR**

| <b>SITE</b>                  | <b>B/C WITH 23-DAY CLOSURE</b> | <b>B/C WITH 39-DAY CLOSURE</b> |
|------------------------------|--------------------------------|--------------------------------|
| Hata Bay Breakwater Harbor   | 0.08                           | 0.16                           |
| Maalaea Pier                 | 0.38                           | 0.50                           |
| Ukumehame Pier               | 0.50                           | 0.71                           |
| Olowalu Pier                 | 0.50                           | 0.71                           |
| Olowalu Dock & Turning Basin | 0.39                           | 0.56                           |
| Olowalu Dredged Harbor       | 0.27                           | 0.38                           |

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<sup>1</sup> A jeopardy opinion means that the project will jeopardize the continued existence of an endangered species.

In addition, the second harbor alternative does not meet the purpose of the project, as:

- it does not facilitate [in the short-term] maritime shipments of the essential commodities required by Maui County;
- it does not optimize the utilization of land and water resources committed to marine cargo and passenger operations in an economically responsible manner; and
- it does not minimize the impact on environmental quality and recreational opportunities contiguous with the Harbor.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at (808) 587-2503.

Very truly yours,

  
s RODNEY K. HARAGA  
Director of Transportation



HAWAIIAN KAMALI'I, INC DBA  
HAWAIIAN CANOE CLUB  
P.O. BOX 5053  
KAHULUUI, HAWAII 96733  
TELEPHONE: (808) 893-2124  
FAX: (808) 893-2047

R

facsimile transmittal

SEP 08 2004

EKNA SERVICES, INC

BRIAN ISHII

Fax:

808-593-8551

From: HAWAIIAN CANOE CLUB

Date:

9-7-04

Re:

9 Pages (Including Cover):

KAHULUUI HARBOR EXTENSION

CC:

☐ Urgent☐ For Review☐ Please Comment☐ Please Reply☐ Please Recycle

LETTERS FROM STUDENTS OF THE  
HUI MALAMA HOME SCHOOL - HAWAII OUTDOOR  
EDUCATION PROGRAM. CLASSES ARE HELD  
AT THE HAWAIIAN CANOE CLUB HALE AND  
OUTDOOR ACTIVITIES TAKE PLACE IN FRONT  
OF THE HALE INCLUDING PADDLING CANOES  
IN THE KAHULUUI HARBOR

Hello my name is Elijah Suoman  
and I go to school at the canoe hole  
and I think that what your doing is  
bad and if you build we dont be able to canoe  
if people keep on building new things than at  
some point down the line there will be no grass  
no tree no where to swim.  
There is no need for more cruise ships  
but there is need for a place to swim and  
to paddle and have fun and come together  
Thank you

Aloha,

Today I heard that you were going to dredge the water in front of the canoe club and make a pier. I can understand that it would help tourism and bring in the cruise ships and the super ferries. But I really disagree with the pier being built. It will stop the waves and break that come in and allows people in Kaula to surf. And also more important is that it will stop the canoe club from paddling and canoe racing.

I just ask that you realize what you are doing and see the effects of building the pier will have on the harbor and the community around it. Mahalo

Sincerely,

Beau Kissler from  
the canoe club

Hi my name is Kainalu

I've been paddling canoe for 4 years and now I  
go to hui malama school at Hawaiian Canoe Club  
please don't build a new dock cause we want to  
paddle canoe and surf it's really not be fun  
cause then we have to move our club  
which would kind of suck.



Dear People

9/76 H

Hi My name is Luis Zayas. I was not born here but ~~was~~

SEP. 07 2004 05:34PM PS

~~lived~~ here on Maui when I was 6. I am now ~~at~~ thirteen  
and where your going to make a new Harbor would  
take ~~me~~ me said. I have already fallen in love with

this harbor. I have only been here for two days. But  
was here a couple of years ago paddling and I  
think it would make the paddlers sad. Please reshine  
a school in this harbor. We who are at this  
~~that~~ would not have canoe races.

FRX NO. : 808 893 2047

R.S. I have always liked cruise cruise  
ships. but I don't any more, they pollute the

OCEAN, Signed By Luis Zayas

FROM : HAWAIIAN CANOE CLUB

dear people, my name is alex thetham

I think that putting in a new harbor is a dumb idea, because we already have a harbor, that is big, if you build a harbor, you should build it away from our school, we don't want to see a big piece of friggen cement, if you think that you want mess up the environment, then your wrong, if you build it, then we can't paddle, if you ~~build~~ build a harbor, then big boats will come in.

P.S. meanies

Today, at the Canoe Club, I swam in the water, jumped off the pier, and had a sand-ball fight with my friends, if you build the planned dock, all of this fun will disappear, and for what? More Pollution, we have enough tourists to get by with, and anymore would cram up our roads (you ever drive through Pa'ia at 5:00) if you build this, the 300+ Hawaiian canoe club members, and the thousands of individual paddlers that go here would have to give up their favorite sport, for tourists, sure, tourists are what drive us and our economy to its current heights, but having the planned pier will destroy why they come, they don't want any skyscrapers, or mega-malls, no, they want the natural beauty, this will decrease tourism as much as the hotel rates, it would offer jobs, well, that's a good point, but drive around Kahului, half of the stores have "HELP WANTED" signs clearly displayed in the window, we have more positions than we have unemployed people. Think California fruit picking in the early years, so many people saw the job applications that their unemployment rates practically reversed, I am a 13 year old child, so I will be here a long time, please don't screw it up like Honolulu.

Another topic is homeland security, which will completely close the harbor. Don't Califormicate maui.

Lathan Welker.

I am Nohea Lussich, I was born and raised on Maui and for as long as I can remember Maui has been changing a lot and some changes were okay but some changes were unneeded.

The change you want to make I cant say is unneeded but it will affect a lot of people in the canoe hale, the ocean is our playground and if you make it so that we cannot play in our own playground you will be affecting more than 1000 people so please think about it real hard before you make this decision.  
Mahalo for your understanding. Nohea

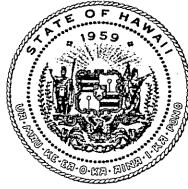
Aloha,

I would like to state my complaint to whom it may concern about the new pier you are going to build. This would seriously impact the thousands of paddlers not to mention the surfers, divers, fishermen, sea life, and pollution. Please reconsider your decision, there are many other ways to get more tourism.

Mahalo,  
Jesse Pierce, 13,  
Hui Malama Learning Center



LINDA LINGLE  
GOVERNOR



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7829.05

November 14, 2005

Students  
Hui Malama Home School – Hawaii Outdoor Education Program  
c/o Hawaiian Canoe Club  
P.O. Box 5033  
Kahului, Hawaii 96733

Dear Students:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your time and effort in commenting on the improvements to the Harbor. For your information, the proposed Pier 2C extension, which would impact the canoe area, will not be constructed. This project has been removed from the proposed project and is not being considered in this Environmental Assessment.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at 587-2503.

Very truly yours,

A handwritten signature in black ink, reading "Rodney K. Haraga", with a long horizontal stroke extending to the right.

RODNEY K. HARAGA  
Director of Transportation

# Hawaiian Canoe Club

P.O. Box 5053 Kahului, Maui, HI 96733

RECEIVED  
SEP 09 2004

September 8, 2004

EKNA SERVICES, INC.

Attn; Mr Brian Ishii  
Edward K Noda & Associates INC  
615 Piikoi Street, Suit 300  
Honolulu, HI 96814

Dear Sir

As the Head Coach of Hawaiian Canoe Club's men's program, I would like to express my extreme disapproval to the proposed pier extensions in Kahului Harbor. A large section of the harbor has already recently been deemed 'restricted' by our canoe club for security reasons, and further restrictions due to the proposed extensions would severely impact our ability to train in the harbor.

The proposed extensions will directly have a negative effect two of Maui's most established and successful canoe clubs and will severely restrict the recreational use of Kahului harbor by literally hundreds of keiki and adult paddlers.

There are also many health and safety concerns with the extra motorized vessel traffic expected in the harbor which the pier extensions will attract. This will only affect the canoe paddlers of the harbor but also the many other recreational users of the harbor including fishermen, surfers, body boarders, swimmer, paddle boarders, and divers to name a few.

We sincerely urge you to reconsider the proposed extensions to Kahului harbor and allow us to continue to perpetuate the centuries old culture and tradition of Hawaiian outrigger canoe paddling.

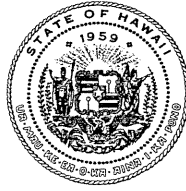
Sincerely,



Richard P Nu'u  
Head Coach – men's program, Hawaiian Canoe Club



LINDA LINGLE  
GOVERNOR



**STATE OF HAWAII**  
**DEPARTMENT OF TRANSPORTATION**  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7830.05

November 14, 2005

Mr. Richard P. Nu'u  
Head Coach – Men's Program  
Hawaiian Canoe Club  
P.O. Box 5053  
Kahului, Hawaii 96733

Dear Mr. Nu'u:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments on the subject document dated September 8, 2004. We offer the following responses.

Regarding your concern about the impact of the proposed improvements to canoe organizations. The Pier 2C improvements that could have impacted the canoe lanes have been removed from the proposed project and will not be constructed under this Environmental Assessment.

In addition, the conflict between the recreational use of the commercial harbor will increase as the forecast maritime demand increases. Unfortunately, the Harbors Division's authority under Hawaii Revised Statutes (HRS) Chapter 266 is for the commercial use of its facilities. HRS Chapter 266-1 states:

for the purpose of this chapter, "commercial harbor" means a harbor or off-shore mooring facility which is primarily for the movement of commercial cargo, passenger and fishing vessels entering, leaving, or traveling within the State, and facilities and supporting services for loading, off-loading, and handling of cargo, passengers and vessels.

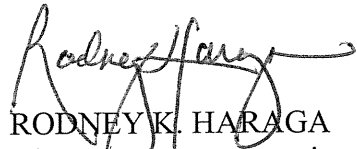
The Harbors Division's statutory authority does not extend to recreational activities and recreational use of its commercial harbors.

Mr. Richard P. Nu'u  
Page 2  
November 14, 2005

HAR-EP 7830.05

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at (808) 587-2503.

Very truly yours,



RODNEY K. HARAGA  
Director of Transportation

September 3, 2004

Brian Ishii  
Noda & Associated  
615 Piikoi Street Suite 300  
Honolulu, HI 96814

RECEIVED  
SEP 07 2004

EKNA SERVICES, INC.

Re: Environmental Assessment Construction of Pier 2C

Dear Mr. Ishii,

As a long time member of Hawaiian Canoe Club I have serious concerns with the draft assessment for the Pier 2C project. The idea that reducing the number of lanes is not a significant impact shows a lack of sensitivity to Hawaiian cultural activities. The volume of recreational and competitive paddling that occurs in the harbor bear witness to the importance residents place on this activity. The harbor as it exists today is a multi use area with fishermen, surfers, swimmers, and paddlers sharing and enjoying its waters. Do not forget that paddling, surfing, swimming and fishing were all happening here long before any commercial harbor was developed. As with too many other places throughout the State of Hawaii, commercial interests have succeeded in overtaking land and driving out cultural activities. Remember, it has only been a few years since the canoe hales were displaced from their original sites to make room for a parking lot!

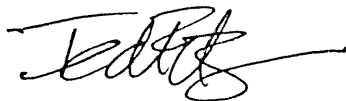
At the club level there are 400-500 paddlers belonging to the two clubs who train and race in the harbor. When you add the number of parents and supporters and other canoe club members who attend the races there are in excess of 1,000 people at the events. In addition to the canoe racing that takes place at the club level, we host the training site for several Maui high school teams that compete in the MIL recognized sport of Hawaiian Outrigger Canoe Racing. The harbor is also the site of regattas during the MIL season with more than 300 student athletes competing at these events. The Department of Education has realized the cultural importance of this sport and added it to their roster of approved sports. What are we saying to the children of Hawaii if we allow commercial interests to overpower our attempts to revive and perpetuate this very important part of Hawaiian heritage?

Our Hale and surrounding grounds are also home to a Hula Halau, a Youth Center and a partnering site with Hui Malama providing youth services. As Hawaiian Canoe Club we operate year-round programs for children as well. Over 300 children are served in these programs (in addition to the 300 plus MIL paddlers). We are successful in attracting kids to our programs in large part because of the harbor and its opportunity to participate in various water activities. Our programs offer structured, safe, supervised recreational and educational opportunities to children from all over the central and upcountry Maui areas who might otherwise have no place to go. We all recognize the importance of offering children alternatives to drugs, violence and other dangerous activities. Our club is proud of the work it does to mentor and help raise the children of Maui

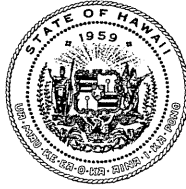
Besides the encroachment issue, there will be significant environmental impact to the harbor area that we are left to operate in. Why aren't you being required to do a complete EIS? How are you able to circumvent the normal procedure? Are you doing this by chopping your harbor overhaul into small pieces instead of considering the total combined impact of your projects? What about the impact of hundreds of cars waiting to board the ferry? There will be cars of all ages leaking oil, gas, and other fluids. The exhaust from these vehicles will be directly upwind from the remaining canoe lanes. The carbon monoxide and other bi-products of combustion will be blown directly over the paddling areas, making the air unhealthy for anyone unfortunate enough to be in its path. The study does not address the issue of practice areas and the impact arriving and departing ferries will have on them. Homeland Security has already taken away the eastern half of the harbor from us, what will be the plan for this new area? The remaining area will be far too small to accommodate the volume of athletes that presently train in the harbor.

Our canoe clubs take great pride in teaching the children Hawaiian heritage and culture. They learn tales of the old Hawaii, the stories of the warriors, kings, queens, and people who came before, their ancestors. They make a strong connection to their past by participating in the ancient practice of canoe paddling. When they are in their canoes they can feel that link to all who have paddled before and the responsibility to continue paddling to honor their ancestors and create for their children that cultural bond with the past. These activities give them a strong sense of what it means to be Hawaiian. They are part of a large paddling ohana that is setting an example for the entire state. We are five time State Champions in our sport and are leading the way in developing programs to benefit the youth of Hawaii by perpetuating the Hawaiian culture. Please do not underestimate the impact your project will have on our ohana.

Yours truly,

A handwritten signature in black ink, appearing to read 'Ted Fritzen', with a stylized, flowing script.

Ted Fritzen  
President, Hawaiian Canoe Club



**STATE OF HAWAII**  
**DEPARTMENT OF TRANSPORTATION**  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7831.05

November 14, 2005

Mr. Ted Fritzen  
President  
Hawaiian Canoe Club  
P.O. Box 5053  
Kahului, Hawaii 96733

Dear Mr. Fritzen:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments on the subject document dated September 3, 2004. We offer the following responses.

1. Regarding your concern about impacts related to the construction of Pier 2C. The Pier 2C improvements will not be constructed under this Environmental Assessment (EA) and has been withdrawn from the proposed project.
2. Regarding your comment on the need for an Environmental Impact Statement (EIS). Under the Hawaii Revised Statutes (HRS) Chapter 343, an EIS is required if there is a significant impact to the environment by a proposed project. The analysis performed in the EA does not indicate any significant impacts and therefore a Finding of No Significant Impacts will be determined and an EIS will not be prepared.
3. Regarding your comment about the possible circumvention of normal procedures. We respectfully disagree, as we are not circumventing any normal procedure and are conducting the EA pursuant to the HRS Chapter 343 and the Hawaii Administrative Rules Section 11-200.
4. Regarding your comment about the segmentation of projects. We are considering the total combined (cumulative) impacts, and we are not segmenting any of the projects as explained in EA Section 1.1. The other projects are not included in the EA because these projects are not reasonably foreseeable and are not ripe for decision making.

5. Regarding your concern about impacts from the Superferry. The Superferry is a specific user of the Harbor and is able to use the existing piers and/or the new proposed piers. As stated in the EA, the proposed improvements are part of the *Kahului Commercial Harbor 2025 Master Plan* and not designed or planned for the Superferry or any other single user.
6. Regarding your comment about impacts of recreational uses in Kahului Harbor. As stated above, the Pier 2C will not be constructed and therefore should have no impact on the practice areas. As far as the Superferry, it will berth on Pier 2. Unfortunately, the Harbors Division's authority under HRS Chapter 266 is for the commercial use of its facilities. HRS Chapter 266-1 states:

for the purpose of this chapter, "commercial harbor" means a harbor or off-shore mooring facility which is primarily for the movement of commercial cargo, passenger and fishing vessels entering, leaving, or traveling within the State, and facilities and supporting services for loading, off-loading, and handling of cargo, passengers and vessels.

The Harbors Division's statutory authority does not extend to recreational activities and recreational use of its commercial harbors. In fact, given the security situation after September 11, 2001, it is highly possible that during a high security risk level that all unauthorized vessels and non-commercial users of Kahului Harbor will not be allowed entry.

To clarify the Superferry security issue, the following will be added into the Final EA.

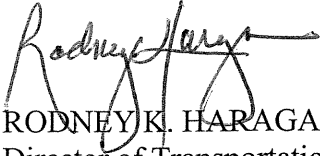
The "Superferry" is required by law (33 Code of Federal Regulations) to develop, implement and maintain a Hawaii Superferry Vessel Security Plan that is submitted to and approved by the U.S. Coast Guard. The Hawaii Superferry Vessel Security Plan must include the Superferry's security personnel, training, drills and exercises, record keeping, Maritime Security Level coordination and implementation, procedures for interfacing with terminal facility security, Declaration of Security, security systems and equipment maintenance, security measures for access control (including screening of vehicles and passengers), security measures for restricted areas, security measures for handling cargo, security measures for delivery of stores and bunkers, security measures for monitoring, security incident procedures, etc. The U.S. Coast Guard will monitor and enforce the security requirements of the Hawaii Superferry Vessel Security Plan. Whenever required, the Hawaii Superferry and the U.S. Coast Guard will request the assistance of the Maui Police Department, the State Department of Public Safety Sheriff Division, the Federal Bureau of Investigation, the State Department of Defense, the State Department of Land & Natural Resources Enforcement Officers and the Department of the State Attorney General.

Mr. Ted Fritzen  
Page 3  
November 14, 2005

HAR-EP 7831.05

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at (808) 587-2503.

Very truly yours,

A handwritten signature in black ink, appearing to read "Rodney K. Haraga", with a long horizontal flourish extending to the right.

RODNEY K. HARAGA  
Director of Transportation





## ISAAC DAVIS HALL

ATTORNEY AT LAW  
2087 WELLS STREET  
WAILUKU, MAUI, HAWAII 96793  
(808) 244-9017  
FAX (808) 244-6775

RECEIVED  
SEP 08 2004

September 7, 2004

EKNA SERVICES, INC.

Via Facsimile and U.S. Mail  
(808) 587-2167

Mr. Rodney Hiraga, Director  
Department of Transportation  
State of Hawaii  
869 Punchbowl Street, Suite 509  
Honolulu, Hawaii 96813-5097

Re: An Environmental Impact Statement ("EIS") is Required for the Kahului Commercial Harbor Improvements Project of the State of Hawaii Department of Transportation- Harbors Division, TMK Nos. (II) 3-7-001: 021, 022; 3-7-010: 002, 003, 006, 013, 015, 021, 022, 024, 026, 027, 028, 030, 032, 034; 3-7-08: 002, 003, 004 and 006, Wailuku, Maui, Hawaii

Dear HDOT Director Rodney Hiraga:

These comments and objections to the entry of a Finding of No Significant Impact ("FONSI") on the Draft Environmental Assessment ("DEA") for the Kahului Commercial Harbor Improvements Project of the State of Hawaii Department of Transportation- Harbors Division, in Wailuku, Maui, Hawaii to take place upon TMK Nos. (II) 3-7-001: 021, 022; 3-7-010: 002, 003, 006, 013, 015, 021, 022, 024, 026, 027, 028, 030, 032, 034 and 3-7-08: 002, 003, 004, 006, Wailuku, Maui, Hawaii are submitted on behalf of the Kahului Harbor Coalition ("Coalition"), an unincorporated association devoted to assuring that the Kahului Harbor is developed in an orderly fashion in accordance with the planning and environmental laws in the State of Hawaii. Some of its members are Mr. Jeffrey Parker and Mr. Gregory Westcott, small farmers on the Island of Maui. These members want assurances that Agricultural Inspection Facilities and personnel will be established to prevent the introduction of alien species. These farmers, and others, will be directly, immediately and adversely affected by the proposed project and, the Coalition therefore, has standing to oppose the entry of any FONSI on this DEA.

## I. INTRODUCTION

The expansion of the State of Hawaii transportation infrastructure in a manner, which induces growth, requires a careful and detailed analysis of a full panoply of environmental impacts. The expansion of the Kahului Harbor mandates, in large measure, the same sort of analyses that were required for the expansion of the Kahului Airport.

Many of the significant new and expanded types of uses of the Kahului Harbor cannot take place, as a matter of fact, until and unless the improvements proposed in the DEA are constructed. Stated in another manner, the construction of the proposed improvements to the Kahului Harbor are **conditions precedent** to the commencement of many of the proposed significant new and expanded types of uses of the Kahului Harbor.

The DEA for the Kahului Commercial Harbor Improvements Project ("proposed project") is authored by the same principal author of the FEIS for the expansion of the Kahului Airport; E. K. Noda & Associates, Inc. and Brian Ishii. The DEA suffers from the same defects as the Kahului Airport FEIS.

The DEA does not fulfill the definition of a DEA; it does not adequately describe identifiable environmental impacts; it does not identify potential impacts and their significance and interested citizens groups and individuals were not consulted early in the environmental process. See HAR §§ 11-200-9 (1)- (7).

The DEA for the Kahului Commercial Harbor Improvements Project is inadequate and unacceptable for multiple, important reasons. The DEA does not satisfy basic, minimal requirements of Hawaii's law on Environmental Impact Statements, Chapter 343, ("HEPA"). It fails "to convey the required information succinctly in a form easily understood, by both members of the public and the public decision-makers." HAR § 11-200-19. Contrary to HAR § 11-200-14, the DEA is "a self-serving recitation of benefits and a rationalization of the proposed action." The preparers of the DEA have not taken a "hard look" at the environmental consequences of the proposed project as a whole.

## II. STANDARD OF REVIEW

The Environmental Assessment ("EA") and Environmental Impact Statement process ("EIS") is described in Price v. Obayashi Haw. Corp. 81 Haw. 171, 914 P.2d 1364 (1996). An EA is prepared for non-exempt applicant or agency actions for which a "triggering" event is present, as here.

An EA is prepared for the limited purpose of determining whether, on a summary basis, the environmental process may be lawfully terminated, or whether a full-blown EIS must be prepared. A relatively low threshold test is applied.

If a proposed action "**may**" have a significant environmental impact, then a full-blown EIS must be prepared. See HRS § 343-5(b). In determining whether a proposed action "**may**" have a significant environmental effect, the "significance criteria" set out in the EIS Regulations must be properly applied. See HAR § 11-200-12. Stated conversely, if, in a short EA, it cannot be demonstrated on a summary basis that a proposed action will not have any significant adverse environmental impacts, then an EIS shall be prepared. An EA is not to be an attempted substitute for an EIS.

If substantial questions are raised regarding whether a proposed action may have a significant impact upon the environment, a decision not to prepare an EIS is unreasonable. Foundation For North American Wild Sheep v. United States Department of Agriculture, 681 F. 2d 1172, 1178 (9<sup>th</sup> Cir. 1982). The reasons given for why impacts are insignificant are crucial in determining whether the agency took the required "hard look" at the potential environmental impacts of the project. Kleppe v. Sierra Club, 427 U.S. 390, 410 (1976). Deference to a FONSI is only required when the agency decision is "fully informed and well-considered". Jones v. Gordon, 792 F. 2d 821, 828 (9<sup>th</sup> Cir. 1986).

The agency should have prepared an EIS where there are substantial questions on whether the project may have a significant effect on the environment. Public Citizen v. U.S. Department of Transportation, (9<sup>th</sup> Cir. 2003, not reported); Anderson v. Evans, (9<sup>th</sup> Cir. 2002, not reported).

As it will be demonstrated below an EIS is required, as a matter of fact and law, upon a correct application of the "significance criteria". A FONSI cannot be justified, if the legislative purposes of Chapter 343 are honored.

### III. THERE HAS BEEN NO COMPLETE EARLY CONSULTATION

Interested members of the public, including the commenters here, have been denied their ability to meaningfully participate in this process to date. In enacting Chapter 343, the Legislature found that:

**... public participation during the review process benefits all parties involved and society as a whole.** (Emphasis added.)

The EIS regulations, in HAR § 11-200-9(1), require a full and complete consultation process with "citizens groups and individuals," among others, before the DEA is circulated. HAR § 11-200-14 states, in pertinent part:

**... The EIS process involves more than the preparation of a document;** it involves the entire process of research, discussion, preparation of a statement, and review .... **An EIS is meaningless without the conscientious application of the EIS process as a whole,** and shall not be merely a self-serving recitation of benefits and a rationalization of the proposed action. (Emphasis added.)

There has been no conscientious application of the EIS process as a whole, in this instance. HDOT only engaged in a "pre-consultation" process with state agencies, mostly, commercial users of the Harbor and a very few others. See DEA § 8.0 and Appendix A.

Given the obvious implication of the alien species introduction issue, as will be described in Section VIII. below, many others, including the commenters here, should have been consulted prior to the publication of this DEA. HDOT also failed to consult state agencies involved with alien species issues and responsible for inspections at the Kahului Harbor, such as the State Department of Agriculture. HDOT failed to consult with Haleakala National Park that was vitally concerned with alien species introductions through the other "portal", the Kahului Airport. HDOT also failed to consult with the U.S. Fish and Wildlife Service, which was thoroughly involved with developing mitigation measures to protect against increased pest introductions at the Kahului Airport. All of these failures render the DEA inadequate as a matter of law.

#### IV. A JOINT FEDERAL/ STATE DEA AND EIS MAY BE REQUIRED

The DEA discloses that this project will use State of Hawaii land and funds in Section 1.0 of the DEA. The document discloses that federal permits are required, namely Sections 401 and 404 permits from the Army Corps of Engineers. In addition, the federal government normally jointly funds projects of this nature with federal funds.

In its response to these comments, HDOT must disclose whether federal permits are required to implement this project and, if so, these permits must be identified with particularity. HDOT must also disclose if there is any anticipated federal funding, in whole or in part, for any of these projects comprising this project as a whole.

If HDOT discloses that there is any federal involvement with this project, through funding or permits, then this DEA is inadequate as a matter of law because it is not a joint federal and state DEA. See HRS § 343-5(f). A joint state-federal EIS is also required for this project.

#### V. THE DEA ILLEGALLY SEGMENTS THE PROJECT

HDOT-HAR has recently completed the Kahului Harbor 2025 Master Plan. Unfortunately, this important document is only improperly incorporated by reference in § 1.1 of the DEA. See HAR § 11-200-19.

The DEA is inadequate as a matter of fact and law because it fails to study and analyze the impacts of the project as a whole. The "significance criteria" require that an agency consider the "sum of effects" on the environment and evaluate the "overall and cumulative effects of an action". See HAR § 11-200-12(a). These same criteria require that "every phase of the proposed action" and "the short-term and long-term" effects of the action shall

be considered. See HAR § 11-200-12(b). The project may have a significant impact even if it is individually limited if it involves a commitment for larger actions. See HAR § 11-200-12(b)(8).

The DEA has been prepared in violation of the mandatory requirements of these regulations. The DEA acknowledges that there are six (6) projects in the first phase of the 2025 Master Plan, which are proposed to be implemented in the next ten (10) years. See DEA § 1.1.

The DEA further states that there are four (4) projects constituting further phases of the 2025 Master Plan to be implemented later. See DEA § 1.1.

The DEA then illegally segments off from **any** analysis in the DEA the long-term phases of this project as a whole. The DEA plainly states that the four (4) later projects “**are not covered by this EA**”. See DEA § 1.1.

This segmentation violates HAR § 11-200-12(a) and (b) and the legislative intent of Chapter 343. It has prevented the long-term and cumulative impacts of this project from being analyzed, as they are required to be as a matter of law.

This State’s EIS Rules also define “connected” actions in HAR § 11-200-7, as follows:

- (a) Groups of actions proposed by an agency or an applicant shall be treated as a single action when:
  - (1) the component actions are phases or increments of a larger total undertaking;
  - (2) an individual project is a necessary precedent for a larger project;
  - (3) an individual project represents a commitment to a larger project ...

It constitutes illegal segmentation to attempt to isolate the first phase of a project for separate analysis. KSOA v. County of Maui, 86 Haw. 66, 947 P.2d 378 (1997). The later phases of this project are also “connected” actions that are required to be studied in the DEA as part of a “single action”. Since they are not, the DEA has not been properly prepared and cannot support a FONSI. Idaho Sporting Congress v. Rittenhouse, 305 F.3d 957 (9<sup>th</sup> Cir. 2002); Native Ecosystems Council v. Dombeck, 304 F.3d 886 (9<sup>th</sup> Cir. 2002) (although individual projects had independent utility and were not required to be considered together in the same NEPA environmental document, the EAs for each did not adequately consider the cumulative impacts of the other projects as reasonably foreseeable actions); Texas Committee on Natural Resources v. Van Winkle, 197 F. Supp. 2d 586 (N.D. Tex. 2002) (Army Corps was required to consider the cumulative impacts of reasonably foreseeable future actions in the same geographical area, although those actions were not actual proposals and precise information about them was not available; there was a reasonable basis

to assume some or all of the projects would be implemented; the cumulative impacts analysis was cursory and the agency did not take a "hard look" at the proposed action's environmental consequences, including cumulative impacts); Sierra Club v. Bosworth, 199 F. Supp. 2d 971 (N.D. Cal. 2002) (connected projects must be addressed in a single EIS).

#### VI. GROWTH INDUCING IMPACTS HAVE BEEN IGNORED

An agency must take a "hard look" at the environmental consequences of a proposed action. Kleppe v. Sierra Club, 427 U.S. 390, 410, n.21, 96 S.Ct. 2718, 49 L.Ed. 2d 576 (1976).

In order to fulfill its role, an EIS (and a DEA) must set forth sufficient information for the general public to make an informed evaluation and for the decision-maker to consider fully the environmental factors involved and to make a reasoned decision after balancing the risks of harm to the environment against the benefits to be derived from the proposed action. County of Suffolk v. Secretary of Interior, 562 F.2d 1368, 1375 (2d Cir. 1977).

The EIS (and a DEA) insures the integrity of the process of decision by giving assurance that stubborn problems or serious criticisms have not been "swept under the rug." Silva v. Lynn, 482 F.2d 1282, 1285 (1<sup>st</sup> Cir. 1973). Compliance with NEPA (and Chapter 343) is the outward sign that environmental values and consequences have been considered during the planning stage of agency actions. Andrus v. Sierra Club, 442 U.S. 347, 350, 99 S.Ct. 2335, 2337, 60 L.Ed. 2d. 943 (1979).

As with the expansion of the Kahului Airport, the proposed expansion of the Kahului Harbor will induce growth and the adverse environmental impacts directly caused by that growth. The impacts due to induced growth were unlawfully ignored in this DEA, just as they were unlawfully ignored in the FEIS for the Kahului Airport. This is not surprising since the documents are both authored by Brian Ishii for E.K. Noda & Associates for the same client, HDOT.

The Hawaii EIS Regulations are quite clear on this point, however. Growth inducing impacts are considered "secondary effects". HAR § 11-200-17(i) states, in pertinent part:

It should be realized that several actions, particularly those that involve the construction of public facilities and structures (e.g. highways, airports, sewer systems, water resource projects, etc.) may well stimulate or induce secondary effects.

This section continues by stating that these "secondary impacts" may be equally important "or more important than primary effects" and "shall be thoroughly discussed to fully describe the probable impact of the proposed action on the environment". See HAR § 11-200-17(i).

The authors of this DEA for the expansion of the Kahului Harbor go to the same tortured lengths to avoid complying with this regulation as did the same authors for the same client in the Kahului Airport FEIS. There is no discussion of the growth-induced impacts of the project in the DEA.

One clear example of this failure is provided by the new, proposed inter-island ferry service in and out of Kahului Harbor, among others. Table 1 of the DEA indicates that there is no such service now (as of August, 2002). The Forecast in Table 2 of the DEA indicates that there will be one inter-island ferry "call" per day or 365 "calls" per year by the year 2025.

It is commonly known that one of the reasons why there is no current inter-island ferry service at the Kahului Harbor is because the infrastructure does not now exist at the Kahului Harbor necessary to allow the type of inter-island ferries contemplated to operate. This Harbor expansion project is to construct the necessary infrastructure to allow these ferries to operate. Only after this infrastructure is constructed will these ferries be able to conduct business, that is, move vehicles on and off the ferries.

An adequate DEA would have to have described the requirements of the inter-island ferries, the size of the boats, the berthing requirements and the facilities requirements, particularly in terms of the infrastructure requirements for driving vehicles on and off of the ferry. None of these details have been provided. The most probable reason why these details have not been provided is because Mr. Ishii, E.K. Noda & Associates and HDOT want to sweep the "growth inducement" issue under the rug.

The defect in this analysis should have and does appear in the discussion of the "no-action alternative" in § 3.6 of the DEA. Instead of admitting that if the Harbor improvements are not constructed the inter-island ferry service will not be able to operate, the DEA only includes the all too vague and untrue statement that the forecast growth of shipping traffic, cargo, tonnage and passengers "will increase without any improvements being constructed". This is the same false statement that was included in the FEIS concerning the lengthening of Runway 2-20.

The defect with respect to the analysis of the inter-island ferry service is equally applicable to the other Harbor uses suggested by HDOT. The expansion of the Kahului Harbor quite obviously facilitates or induces the increase in foreign and domestic cruise ships from **52** per year as of August, 2002 to **287** per year by 2025. Likewise, the increase between 2002 and 2025 in the amount of cargo, of all types, anticipated to arrive on Maui at Kahului Harbor is very large and significant.

The impacts of these increases in terms of pollution, traffic, drugs, alien species introductions, infrastructural deficits, tourism impacts and socio-economic impacts have nowhere been addressed in the DEA. The DEA is wholly inadequate for these reasons alone.

## VII. THE DEA IS TOO VAGUE TO PERMIT ENVIRONMENTAL ANALYSIS

The intent and purpose of Chapter 343 is subverted by allowing HDOT to prepare a DEA on a project with less than the specificity, which would allow the analysis of potential environmental impacts. For example, the DEA only contains vague descriptions of the proposed improvements to the Harbor. There is no explanation of what necessitates these improvements in particular. The DEA contains only vague descriptions of the operations taking place at the Harbor and only vague descriptions of those operations proposed to take place in the future.

Most importantly, there is no particular description of any nexus between the proposed operations and the proposed improvements. A taxpayer, for example, has no idea, why one proposed improvement might be helpful or necessary for a particular type or class of user or proposed user. Without linking a use or proposed use to an improvement, it is impossible to study impacts, weigh societal benefits against losses or to perform most of the other vital functions intended by the legislature to be performed in environmental analyses.

## VIII. FAILURE TO STUDY INCREASED PEST/DRUG INTRODUCTIONS

HDOT and the authors of this DEA, Brian Ishii and E.K. Noda & Associates, are all fully aware that **most** alien species enter Hawaii through our **harbors** and **airports**. The FEIS for the expansion of the Kahului Airport, authored by Brian Ishii of E.K. Noda & Associates for HDOT contains lengthy documentation about the island-wide threat of alien species introductions to our ecosystems, agriculture and tourism. The FEIS contains a lengthy analysis of how this threat is substantially increased by an increase in the number of aircraft arrivals at the Kahului Airport. The FEIS also contains a lengthy description of the mitigation measures which must be implemented in order to prevent these alien species introductions through the Kahului Airport.

Many of the documents included in the FEIS for the expansion of the Kahului Airport also contain sections describing other "portals" through which alien species are introduced to the Island of Maui besides the Airport. For example, the "Biological Assessment" prepared for the FEIS contains a chart describing the "pathways" for the introduction of alien species and indicates a significant percentage for introductions through the Harbor. The "Biological Assessment" indicates that an increase in surface ship traffic landing cargo here likely leads to an increase in alien species introductions.

Having acknowledged the extent of the problem and studied it in detail in an EIS for the Kahului Airport and having already admitted that a similar problem exists concerning alien species introductions at our Harbors two critical facts or issues are readily apparent. First, there can be no justification for the scant treatment of this issue in the DEA. Second, if it took a full blown EIS in the Kahului Airport case to convince HDOT to take the issue seriously



and to develop and implement mitigation measures for the Airport, then a full blown EIS is also required here to address the issue of the increase in alien species introductions which will directly or secondarily result from this project and to implement mitigation measures at the Harbor to protect Maui from these potential introductions.

One of the great defects of the FEIS for the Kahului Airport was the failure to include within the document itself an assessment of the risks of alien species introductions presented by the increased shipping arrivals between 2002 and 2025. To accomplish this necessary study and to assemble this data, HDOT first needed to retain competent individuals to prepare this Risk Assessment. The foreign arrivals needed to be described in greater detail so that the sort of aliens likely to be introduced may be assessed.

Likewise, increased ship travel between the islands has also been recognized as a significant threat by which alien species on one island are spread to other islands. The Risk Assessment must address this important issue as well.

Only after this Risk Assessment is prepared will it be possible to determine the probable effects of these increased shipping arrivals on the environment throughout the Island of Maui. A full-blown EIS would be the best mechanism for addressing these issues, especially since they have not been addressed in the DEA, they were not intended to be addressed in an EA and are not capable of being properly addressed in an EA.

#### IX. THE STUDY OF ALTERNATIVES IS INADEQUATE

It has been judicially determined that the "heart" of environmental analysis is the study of alternatives to the proposed action. Friends of the Bitterroot v. U.S. Forest Service, 900 F. Supp. 1368 (D.C. Mont. 1994); Conner v. Burford, 836 F. 2d 1521 (9<sup>th</sup> Cir. 1988).

The study of alternatives included in this DEA is half-hearted and inadequate. The no action alternative contains statements, which are false as a matter of fact, and law. Southern Utah Wilderness Alliance v. Norton, (D.D.C. 2002, not reported) (an alternatives analysis that exhibits "unquestioning acceptance" of the project applicant's statements regarding their objectives is defective; the agency must conduct or commission an independent analysis of alternatives offered by an applicant).

#### X. THE NECESSITY FOR ASSEMBLING DATA AND CONDUCTING STUDIES AND TESTS AS PART OF THE DEA PROCESS

The DEA process involves at a minimum obtaining various relevant data and conducting necessary studies. See HAR § 11-200-14. It is essential in preparing an adequate DEA that HDOT assemble necessary data to conduct appropriate studies as described above.

HDOT is reminded of its obligation to analyze and address in the DEA "the full range of responsible opinion" and "responsible opposing views on significant environmental issues" raised by the Kahului Harbor expansion project. See HAR § 11-200-16. These views and issues should not be "swept under the rug." Sierra Club v. Bosworth, 199 F. Supp. 2d 971 (N.D. Cal. 2002); League of Wilderness Defenders v. Zielinski, 187 F. Supp. 2d 1263 (D. Ore. 2002) (an environmental document that fails to disclose and analyze differing scientific opinions is defective).

#### XI. INCORPORATION BY REFERENCE OF OTHER COMMENTS

The commentors hereby incorporate by reference all other comments submitted by all others who commented on this DEA, in particular all other comments tending to indicate that the DEA is inadequate or that an EIS is required.

#### XII. THE DEA DOES NOT MEET THE TESTS FOR A FONSI

The authors of the DEA improperly find that the proposed project meets the tests for a FONSI in § 5.0 of the DEA. This will be demonstrated below:

Test 1: This test is not met. No proper study has been conducted to allow this finding to be entered. The unmitigated increased rate of alien species introductions would undermine any finding here.

Test 2: The uses of the Harbor for recreation may certainly be curtailed. Surfing, fishing and canoeing will all most definitely be curtailed by these expansions of the Kahului Harbor. HDOT has not taken a "hard look" at the impact of this proposed project on surfing, fishing and canoeing, as all of these activities now take place in the Harbor. All of these activities most certainly will be adversely affected by this proposed project. The failure to address long-term, cumulative impacts of increased tourism undermines any finding here.

Test 3: This DEA violates the EIS regulations and the mandate that long-term, cumulative impacts must be addressed, among others.

Test 4: There is no basis for this conclusion. Most importantly, the growth-inducing impacts of this project have been swept under the rug.

Test 5: There is no factual basis for this finding.

Test 6: The conclusion here that this project will have no secondary impacts is wrong as a matter of fact and law. This project may have significant secondary effects and these have not been addressed in the DEA.

Test 7: Because "off-site" impacts and long-term, cumulative and secondary impacts have not been addressed in this DEA, there is no basis for this finding. In addition, the project involves substantial degradation of environmental quality. Water quality may well be detrimentally affected by this

proposed project. There has been no effort in the DEA to deal with the dumping of wastes by cruise ships in Harbors. This project will facilitate a five-fold increase from 2002 to 2025 of cruise ships from 52 per year to 287 per year. The potential environmental damage caused by these cruise ships is addressed in *Environment Hawaii*, Volume 13, No. 8 in "Molokai Protests Shine Spotlight On Effects Of Cruise Industry Growth" and in "International, Federal Laws Addressing Cruise Ship Wastes", both of which are incorporated by reference. The DEA fails to address the significant water pollution caused by these ships and fails to address the laws intending to prevent this pollution.

Test 8: This finding is void as a matter of law. This project may have significant secondary effects and these have not been addressed in the DEA. This DEA violates the EIS regulations and the mandate that long-term, cumulative impacts must be addressed, among others.

Test 9: Because "off-site" impacts and long-term, cumulative and secondary impacts have not been addressed in this DEA, there is no basis for this finding. HDOT has totally failed to address the issue of the increase in alien species introductions upon endangered species and their habitats.

Test 10: There is no evidentiary basis for this finding. Water quality may well be detrimentally affected by this proposed project. There has been no effort in the DEA to deal with the dumping of wastes by cruise ships in Harbors. This project will facilitate a five-fold increase from 2002 to 2025 of cruise ships from 52 per year to 287 per year. The potential environmental damage caused by these cruise ships is addressed in *Environment Hawaii*, Volume 13, No. 8 in "Molokai Protests Shine Spotlight On Effects Of Cruise Industry Growth" and in "International, Federal Laws Addressing Cruise Ship Wastes", both of which are incorporated by reference. The DEA fails to address the significant water pollution caused by these ships and fails to address the laws intending to prevent this pollution.

Test 11: Because "off-site" impacts and long-term, cumulative and secondary impacts have not been addressed in this DEA, there is no basis for this finding. HDOT has totally failed to address the issue of the increase in alien species introductions on endangered species and their habitats. Coastal waters are defined as environmentally sensitive areas. For the same reasons that Test 10 has not been satisfied, Test 11 is not met.

Test 12: There is no evidentiary basis for this finding in the DEA.

Test 13: There is no evidentiary basis for this finding. There is no analysis of what powers the vessels, how much of that will be required and where it will come from. There is no analysis of how much of the "cargo" being brought into the Harbor is to satisfy island energy demands of one kind or another.

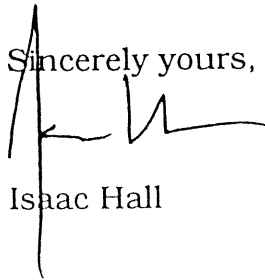
XIII. CONCLUSION/DEA SHOULD BE WITHDRAWN

The inadequacies of the DEA are so severe that the document must be withdrawn, rewritten, republished as a Draft EIS, and public review recommenced.

We trust that you will take seriously your responsibility to enforce the environmental laws of our state, and refuse to accept or approve this document until it has been adequately prepared to serve its intended purpose.

Thank you for the opportunity to oppose the entry of a FONSI on this DEA. I request that you find either that (a) this DEA is inadequate, or (b) that substantial questions have been raised about whether the proposed action may have a significant effect on the environment and therefore require the preparation of an EIS.

Sincerely yours,

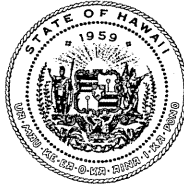


Isaac Hall

IH/sn

cc: Department of Transportation – Harbor Division  
Attn: Iris Thompson (via facsimile 587-2504)  
79 South Nimitz Highway  
Honolulu, Hawaii 96813  
Edward K. Noda & Associates, Inc.  
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IN REPLY REFER TO:

HAR-EP 7832.05

November 10, 2005

Mr. Isaac Davis Hall  
Attorney at Law  
2087 Wells Street  
Wailuku, Hawaii 96793

Dear Mr. Hall:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments on the subject document dated September 7, 2004 for your clients the "Kahului Harbor Coalition," of which some members are Mr. Jeffrey Parker and Mr. Gregory Westcott, small farmers on the island of Maui. We offer the following responses.

1. Regarding your comment about the expansion of transportation infrastructure in a manner, which induces growth, requires a careful and detailed analysis of a full panoply of environmental impacts. We respectfully disagree with the commentator's view on the growth inducing impacts of the expansion of transportation infrastructure. As the commentator refers to the *Kahului Airport Environmental Impact Statement*, a detailed analysis was completed for growth inducing impacts and the conclusion was that there will be little or no growth. Also, as far as the adequacy of the *Kahului Airport Environmental Impact Statement*, it was found to be adequate in both the State and Federal courts, for Hawaii Revised Statutes (HRS) Chapter 343 and National Environmental Policy Act (NEPA), respectively. Similarly, the harbor improvements are based on the forecast demand as stated in Section 3.0 of the *Kahului Commercial Harbor 2025 Master Plan Environmental Assessment* (EA). As these forecasts are based on population projections and ship schedules, the demand will occur with or without the proposed project. An economic analysis of harbor improvements is provided in the EA Section 4.5.

Regarding your comment that the Draft EA does not fulfill the definition of a Draft EA, that it does not adequately describe identifiable environmental impacts, that it does not identify potential impacts and their significance, and that interested citizens groups and

individuals were not consulted early in the environmental process (See HAR Section 11-200-9). We respectfully disagree with the commentator's opinion. The Draft EA and pre-consultation were prepared in accordance with the HRS Chapter 343 and Hawaii Administration Rules (HAR) Section 11-200-9. We also disagree with the commentator's views about the Draft EA which are as follows: *"“fails “to convey the required information succinctly in a form easily understood, by both members of the public and the public decision-makers.” HAR Section 11-200-19. Contrary to HAR Section 11-200-14, the Draft EA is “a self-serving recitation of benefits and a rationalization of the proposed action.” The preparers of the Draft EA have not taken a “hard look” at the environmental consequences of the proposed project as a whole.””*

In regards to the segmentation issue, please see the response to the segmentation comment below. In addition, the purpose of HRS Chapter 343 is to establish “an environmental review process will integrate the review of environmental concerns with existing planning processes of the State and counties and *alert decision makers* [emphasis added] to significant environmental effects which may result from the implementation of certain actions.” For this EA, no significant impacts were found and a Finding of No Significant Impact (FONSI) will be determined.

2. Regarding your comment on the issue of standard of review. We agree that an environmental assessment is prepared to determine if an environmental impact statement (EIS) will be required or not. In this instance, the environmental assessment analysis determined that the impacts of the proposed projects are insignificant and a FONSI is warranted. The preparation of an EIS, therefore, is unnecessary.
3. Regarding your comment that there was no early consultation. We disagree with the commentator's opinion that “early consultation was not completed and that this renders the Draft EA inadequate.” The HAR Section 11-200-9 states:

B. Seek, at the earliest practicable time, the advice and input of the county agency responsible for implementing the county's general plan for each county in which the proposed action is to occur, and consult with other agencies having jurisdiction or expertise as well as those citizen's groups and individuals which the *proposing agency reasonably believes to be affected* [emphasis added].

This requirement was met as we have had discussions about the proposed improvements with various groups, including the Maui County planning agencies from the inception of the *Kahului Commercial Harbor 2025 Master Plan*. In addition, for the pre-consultation portion of the EA, we increased the outreach to other groups and agencies as presented in the EA Section 8.1.

Also, HAR Section 11-200-14 applies to the preparation of an EIS, and if an EIS were prepared, it would be produced pursuant to HAR Section 11-200-14, as applicable, and pursuant to all other applicable rules and regulations. However, the EA found no significant impacts and a FONSI will be determined. The EA did take a “hard look” at the environmental impacts for the proposed project and is not just a “self-serving recitation of benefits and a rationalization of the proposed action.”

4. Regarding your comment whether a joint Federal/State EA and EIS may be required. As stated by the commentator, the Draft EA does disclose which Federal permits will be needed to implement the proposed improvements (see EA Section 1.4). However, there will be no Federal funds used for any of the proposed improvements. The decision to prepare a Federal environmental document is at the discretion of the appropriate federal agency issuing the permit. HRS Chapter 343-5(f) states that:

[w]henver an action is subject to both the National Environmental Policy Act of 1969 (Public Law 91-190) and the requirements of this chapter, the office and agencies shall cooperate with federal agencies to the fullest extent possible to reduce duplication between federal and state requirements. Such cooperation, to the fullest extent possible, shall include joint environmental impact statements with concurrent public review and processing at both levels of government. Where federal law has environmental impact statement requirements in addition to but not in conflict with this chapter, the office and agencies shall cooperate in fulfilling these requirements so that one document shall comply with all applicable laws.

As stated previously, an EIS will not be prepared because there are no significant impacts. However, the preparation of separate state and federal environmental documents does not make this EA inadequate.

5. Regarding your comment that the Draft EA illegally segments the project. We disagree with the commentator’s opinion that the document has improperly incorporated by reference the *Kahului Commercial Harbor 2025 Master Plan*. The analysis in the EA was prepared in an objective manner consistent with the requirements of the HRS Chapter 343 and HAR Section 11-200. The analysis did look at the project as a whole and has not been segmented. As stated in the EA Section 1.1, the intermediate and long-term projects are not reasonably foreseeable and not ripe for decision-making, and therefore not considered as part of the proposed project. These projects are independent of each other and do not represent or commit the Harbors Division to a larger project. In addition, if and when the intermediate and long-range projects are ripe for decision-making or reasonably foreseeable, additional environmental studies and documents will be prepared as required.

The fact that the EA cannot provide a comprehensive environmental review of the long-term projects does not mean that the EA is deficient. Under NEPA, multi-stage (phased) projects such as this can be tiered so long as the portions of the project that are fully analyzed in the EA meet the following criteria:

- i) they have substantial independent utility;
- ii) they do not foreclose the opportunity to consider alternatives to the more speculative, long-term projects that will be studied later; and
- iii) they do not irretrievably commit federal funds for those projects.

Similarly, HRS Chapter 343 has similar requirements, which are:

- i) the component actions are independent of each other and do not represent a larger total undertaking;
- ii) the individual projects are not necessarily precedent to the larger project;
- iii) the individual projects are not a commitment to a larger project; and
- iv) the individual actions are not essentially identical.

As stated in the EA Section 3.4, the short-term projects are independent of the intermediate and long-term projects, and do not represent a larger undertaking or a commitment to a larger project. In addition, the intermediate and long-term projects are speculative at best (therefore, not reasonably foreseeable or ripe for decision making) as stated in the EA Section 1.1. In addition, the short-term projects do not foreclose the opportunity to consider other alternatives for the speculative intermediate and long-term projects, and do not irretrievably commit state funds to the long-term projects.

Finally, the U.S. Council of Environmental Quality Control (CEQ) regulation 1508.28(b), tiering should be used to “help the lead agency focus on issues that are ripe for decision and exclude from consideration issues already decided *or not yet ripe* [emphasis added].” Therefore the EA focused on the short-term projects and deferred detailed analysis of the intermediate and long-term projects until a later date when and if they would actually be reasonably foreseeable and ripe for decision as these projects have serious operational concerns as stated in the EA.

6. Regarding your comment that growth-inducing impacts have been ignored. The commentator has maintained throughout the Kahului Airport and Kahului Harbor planning processes that growth inducing impacts are being ignored. We respectfully disagree with this view. Even with a very comprehensive growth inducing analysis in the *Kahului Airport EIS* that concluded that the airport infrastructure improvements cause little or no growth, the commentator states that there will be growth inducing impacts at



Kahului Airport. We again respectfully disagree with the commentator that the proposed improvements at Kahului Harbor will cause growth. As discussed in the various sections for water supply, solid waste, socio-economic impacts, etc., the forecast maritime demand is independent of the proposed improvements.

The commentator continually refers to the *Kahului Airport EIS* and therefore, as a case in point, the proposed improvements analyzed in the aforementioned EIS have not been constructed, especially the extension of Runway 2-20. However, the aviation demand at Kahului Airport has continued to grow as stated in the no-action alternative in the *Kahului Airport EIS*. In addition, aircraft can arrive at Kahului Airport from any origination point and the current aviation demand shows aircraft arriving from new origination points, again, without the proposed improvements being constructed. Therefore, the growth inducing analysis has not been ignored and the conclusion of the analysis differs from the commentator's opinion.

Regarding your comment that Table 1 of the Draft EA indicates that there is no such service now (as of August, 2002) and that the forecast in Table 2 of the Draft EA indicates that there will be one inter-island ferry "call" per day or 365 "calls" per year by the year 2025. During the master planning process it was a reasonable assumption that an interisland ferry system may start within the planning period, as there have been other interisland ferries - although none of the previous interisland ferry ventures have been able to become a mainstay in interisland travel. The number and frequency of the ferry calls also would be reasonable to assume at least a one call per day service for an interisland ferry operation to remain viable. In fact, the Hawaii Superferry has recently announced plans to start service with one call per day to Kahului Harbor in early 2007.

As all of Kahului Commercial Harbor's piers serve as multi-use berths, interisland ferries can use any of the existing piers. The Harbors Division is pursuing the construction of additional piers to accommodate the anticipated maritime demand, as stated in the EA Section 3.2. This demand includes petroleum barges, cement ships, container vessels and cruise ships, as well as ferries. As discussed in the EA Section 3.3, the forecast was developed using statistical studies to establish a reasonable forecast and basis for the *Kahului Commercial Harbor 2025 Master Plan*.

Regarding your comment that the impacts of these increases in terms of pollution, traffic, drugs, alien species introductions, infrastructural deficits, tourism impacts and socio-economic impacts have nowhere been addressed. See the responses to these comments within this letter or in the EA as follows:

- Pollution, Sections 4.3, 4.4, 4.8, 4.16 and 4.17.
- Traffic, Section 4.22.

- Drugs, Section 4.18.
- Alien species, Section 4.10.1.4.
- Infrastructure, Sections 4.13, 4.15, 4.17, 4.18, 4.19, 4.20, 4.22.
- Tourism, Section 4.5.
- Socio-Economic, Section 4.5.

We respectfully disagree that the portrayal that the no-action scenario was too vague and untrue. We contend that the description of the no-action scenario is accurate. The commentator does not provide specifics as to the claim that it will be growth-inducing and therefore, no specific response can be provided.

7. Regarding your comment that the Draft EA is too vague. We respectfully disagree with the commentator's assertions that the Draft EA is too vague. The Draft EA is based on the *Kahului Commercial Harbor 2025 Master Plan*, which is a planning document and that reasonable foreseeable details have been made available for the decision maker.

As far as the future anticipated use of the piers, it has been shown in the berthing analysis in the EA Section 3.3. This berthing analysis have been re-analyzed without the use of Pier 5 and Pier 2C.<sup>1</sup> In addition, the following *Kahului Commercial Harbor 2025 Master Plan* statement will be added to the EA to clarify that piers are for common use:

Berthing within the State's commercial harbors is generally not permanently assigned. Vessels entering the port are directed to their berths according to the shoreside facilities required and the availability of such berths.

8. Regarding your comment that the Draft EA failed to study the increased pest and drug introductions. We respectfully disagree with the commentator that there was a failure to study and address alien pest species and drugs interdiction. The alien species issue is discussed in the EA Section 4.10.1.4 and the police and public safety concerns (which would include drugs) are addressed in the EA Section 4.18. The Harbors Division has no authority to control what is shipped through its ports, nor does it have any authority to inspect or prevent the introduction of drugs or alien pest species into Maui. As stated in the EA, the jurisdiction for these inspections and prevention is with various State and Federal agencies. The alien species risk assessment performed at Kahului Airport shows that passengers and the vessels are of low risk. Rather, the high-risk items are those commodities that are imported by the residents of Maui. The following statement will be added to the Final EA in Section 4.10.1.4.

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<sup>1</sup> The Pier 2C improvements have been removed from the Proposed Projects due to concerns raised from the canoe paddlers and will not be constructed under this EA.

Alien species can be introduced purposefully or incidentally, such as by hitchhiking on cargo or as stowaways in the containers. Therefore, many of the alien pest species hitchhike on commodities imported by businesses and residents of Maui County. This is shown in the results from the Kahului Airport Risk Assessment, which indicates that the passengers are typically a low risk pathway for the importation of alien species. The high risk commodities for the importation of alien pest species include plants and propagative plant parts. Other high risk commodities include organic produce, leafy greens (such as lettuce, cabbage and kale), cut flowers, strawberries, and peppers. Other high risk commodities which enter through the Harbor include Christmas trees and other plant material.

Once an alien species is established on one island it is highly likely to spread to other islands, especially seeds and flying insects. The interisland dispersal pathways include, but are not limited to, seeds carried by birds, migration of birds, dispersal by wind and dispersal by ocean currents.

The HDOA has designated Kahului as a limited port-of-entry for overseas agricultural commodities, therefore only plants and plant products such as produce and cut-flowers are allowed entry. Live animals (except live seafood for consumption) and microorganisms from foreign and domestic origins are not allowed entry through Kahului unless inspected by HDOA in Honolulu prior to the transport to Kahului.

Therefore, pursuant to the HRS, Section 150A-5 any person transporting any agricultural commodity to Hawaii shall notify the HDOA and hold the commodity on the dock, pier, wharf, airport, air terminal where they are first received or discharged until inspection can be made by the Plant Quarantine Inspector. However, because there has always been a shortage of space at the piers, transportation companies have been requesting more inspections to be done at sites other than the dock or at the dock but before or after regular work time to allow for the containers to be moved from the docks. For the maritime operations, the shippers will reimburse the State for the inspector's cost to inspect the containers during overtime hours.

Although HDOA manpower is limited at other ports, the addition of DOT funded agricultural inspectors at Kahului Airport allows the non-Airport inspectors to work more hours at the Harbor to perform the necessary inspections. In addition, there are more inspectors to work overtime hours to inspect the incoming maritime commodities, if necessary.

Similarly, propagative agricultural commodities cannot move between islands without HDOA inspection. If this cargo is not inspected by HDOA, Young Brothers will not allow the cargo to be boarded onto the vessel. Non-propagative plant parts, such as cut flowers, fruits, vegetables and produce, need not be inspected provided that they are subject to random inspection by HDOA. Similarly, Hawaii Superferry is currently working on the HDOA requirements for their operations with HDOA and has included the following measures in their Tariff No. 1.

- *“Domestic cats and dogs ONLY may travel on Carrier’s [“Superferry”] vessels. No other animals are permitted except livestock and poultry from Hawaii Department of Agriculture (HDOA) licensed agricultural producers. Carrier does not permit the carriage of reptiles, snakes, birds (except HDOA registered poultry transported by registered growers), rodents or exotic species of animals of any kind.*
- *Only plants, flowers and crops that have either been inspected and passed at the HDOA Plant Quarantine Office or via the Nursery Self Certification Program may be transported on Carrier’s [“Superferry”] vessel. In all cases, a “Passed” sticker must be shown before plants will be allowed on the ferry. No other plants will be permitted on the ferry and must be left for destruction by Carrier’s [“Superferry”] personnel.”*

Therefore, the analysis and determination that the proposed improvements will have no or an insignificant impact on the introduction of alien species in the Draft EA is accurate and contrary to the commentator’s opinion. Similarly, the proposed improvements will not significantly impact the inspection and intervention of drugs. Based on the above and the analysis performed for the EA, the impacts are insignificant and an EIS is not warranted.

9. Regarding your comment that the study of alternatives is inadequate. We respectfully disagree with the commentator’s statement that the alternative analysis is half-hearted and inadequate and that the no-action alternative contains false statements. In addition, the EA is an agency document and not an applicant document. Therefore, the agency is not required to have an independent analysis completed.
10. Regarding your comments about the necessity for assembling data and conducting studies and tests as part of the Draft EA process. We appreciate the commentator’s view on obtaining relevant data and conducting the necessary studies. Through this assessment, the Harbors Division and its consultants have conducted the necessary studies for this environmental assessment and impacts were not “swept under the rug” as the commentator asserts.

11. Regarding your comment about incorporation by reference of other comments. All comments received, and appropriate responses will be included in the Final EA for review by the decision maker, pursuant to the HRS Chapter 343 and HAR Section 11-200.
12. Regarding your comment that the Draft EA does not meet the tests for a FONSI.

**Test 1:**

**Comment.** This test is not met. No proper study has been conducted to allow this finding to be entered. The unmitigated increased rate of alien species introductions would undermine any finding here.

**Response.** We disagree with the commentator. As shown in the *Kahului Airport Risk Assessment*, alien species make their way to Hawaii by hitchhiking on commodities bound for Kahului, as these commodities are imported at the request of the residents of Maui. Please see response on alien species, above and the analysis in the EA.

**Test 2:**

**Comment.** The uses of the harbor for recreation may certainly be curtailed. Surfing, fishing and canoeing will all most definitely be curtailed by these expansions of the Kahului Harbor. The Harbors Division has not taken a "hard look" at the impact of this proposed project on surfing, fishing and canoeing, as all of these activities now take place in the harbor. All of these activities most certainly will be adversely affected by this proposed project. The failure to address long-term, cumulative impacts of increased tourism undermines any finding here.

**Response.** As stated in the EA Section 4.21, the surfing and fishing that are currently permitted will not be impacted by the proposed improvements. As far as the canoe paddling, the Pier 2C development has been removed from the proposed project and will not be constructed at this time. As stated above, the argument that improvements of transportation infrastructure causes growth in tourism is discussed above, see response to item 6 above on growth inducing impacts.

**Test 3:**

**Comment.** This Draft EA violates the EIS regulations and the mandate that long-term, cumulative impacts must be addressed, among others.

**Response.** We respectfully disagree with the commentator that the Draft EA violates the EIS regulations. The Draft EA and Final EA have been prepared pursuant the HRS Chapter 343 and HAR Section 11-200. In addition, both documents analyzed both short- and long-term impacts, as well as cumulative impacts.

**Test 4:**

**Comment.** There is no basis for this conclusion. Most importantly, the growth-inducing impacts of this project have been swept under the rug.

**Response.** We respectfully disagree, as stated above in item 6, there will be no growth inducing impacts due to the proposed improvements.

**Test 5:**

**Comment.** There is no factual basis for this finding.

**Response.** We respectfully disagree with the commentator, however, as no specific comment was provided, no specific response can be provided.

**Test 6:**

**Comment.** The conclusion here that this project will have no secondary impacts is wrong as a matter of fact and law. This project may have significant secondary effects and these have not been addressed in the Draft EA.

**Response.** We respectfully disagree with the commentator, however, as no specific comment was provided, no specific response can be provided. Please refer to the response to item 6, growth-inducing impacts, above.

**Test 7:**

**Comment.** Because “off-site” impacts and long-term, cumulative and secondary impacts have not been addressed in this Draft EA, there is no basis for this finding. In addition, the project involves substantial degradation of environmental quality. Water quality may well be detrimentally affected by the proposed project. There has been no effort in the Draft EA to deal with the dumping of wastes by cruise ships in Harbors. This project will facilitate a five-fold increase from 2002 to 2025 of cruise ships from 52 per year to 287 per year. The potential environmental damage caused by these cruise ships is addressed in *Environment Hawaii*, Volume 13, No. 8 in "Molokai Protests Shine Spotlight On Effects Of Cruise Industry Growth" and in *International, Federal Laws Addressing Cruise Ship Wastes*, both of which are incorporated by reference. The Draft EA fails to address the significant water pollution caused by these ships and fails to address the laws intending to prevent this pollution.

**Response.** We respectfully disagree with the commentator that cumulative and secondary impacts were not addressed in the Draft EA. Dumping in the harbor is illegal pursuant to HRS Chapter 19-42-127, "Littering or polluting of water prohibited," it is illegal to pollute or discharge either directly or indirectly anything other than clean water into any harbor. The U.S. Coast Guard and the Harbors Division enforce this law. Therefore, there will be no legal dumping and discharge of pollutants in harbor waters due to the maritime demand. There is a spill response team, whose equipment is strategically located within Kahului Harbor, which is trained to respond immediately to spills and coordinate its efforts with the U.S. Coast Guard. Also, as stated in the EA Section 4.10.1.4, "Alien Pest Species," the Northwest Cruise Ship Association has entered into a Memorandum of Understanding with the State of Hawaii that prohibits the discharge of wastes within the Hawaii Marine Areas.

The HAR Section 19-42-127 will be referenced in the Final Environmental Assessment, Section 4.8 Water Quality. In response to the commentator, the operations outside the commercial harbor is not within the jurisdiction of the Harbors Division and is out-of-scope with this EA.

**Test 8:**

**Comment.** This finding is void as a matter of law. This project may have significant secondary effects and these have not been addressed in the Draft EA. This Draft EA violates the EIS regulations and the mandate that long-term, cumulative impacts must be addressed, among others.

**Response.** We respectfully disagree, as stated in the EA, the proposed improvements are individually limited and do not have significant cumulative impacts.

**Test 9:**

**Comment.** Because off-site impacts and long-term, cumulative and secondary impacts have not been addressed in this Draft EA, there is no basis for this finding. The Harbors Division has totally failed to address the issue of the increase in alien species introductions upon endangered species and their habitats.

**Response.** We respectfully disagree, as stated in the EA, the proposed improvements do not have an impact on any listed species. The alien species issue is addressed above and in the EA.

**Test 10:**

**Comment.** There is no evidentiary basis for this finding. Water quality may well be detrimentally affected by this proposed project. There has been no effort in the Draft EA to deal with the dumping of wastes by cruise ships in harbors. This project will facilitate a five-fold increase from 2002 to 2025 of cruise ships from 52 per year to 287 per year. The potential environmental damage caused by these cruise ships is addressed in *Environment Hawaii*, Volume 13, No. 8 in "Molokai Protests Shine Spotlight On Effects Of Cruise Industry Growth" and in *International Federal Laws Addressing Cruise Ship Wastes*, both of which are incorporated by reference. The Draft EA fails to address the significant water pollution caused by these ships and fails to address the laws intending to prevent this pollution,

**Response.** Refer to comments discussed in Water Quality section of the EA and also the response to Test 7, above.

**Test 11:**

**Comment.** Because off-site impacts and long-term, cumulative and secondary impacts have not been addressed in this Draft EA, there is no basis for this finding. The Harbors Division has totally failed to address the issue of the increase in alien species introductions on endangered species and their habitats. Coastal waters are defined as environmentally sensitive areas.

**Response.** We respectfully disagree, as stated in the EA, there will be no significant impacts to the coastal area by the proposed improvements.

**Test 12:**

**Comment.** There is no evidentiary basis for this finding in the Draft EA.

**Response.** We disagree with the commentator as the analysis is included in the EA.

**Test 13:**

**Comment.** There is no evidentiary basis for this finding. There is no analysis of what powers the vessels, how much of that will be required and where it will come from. There is no analysis of how much of the cargo being brought into the harbor is to satisfy island energy demands of one kind or another.

**Response.** We respectfully disagree with the commentator as the analysis is included in the EA. The number of calls for fuel (petroleum), coal and propane are shown in the forecasts and their anticipated berths are discussed in the EA Section 3.3.



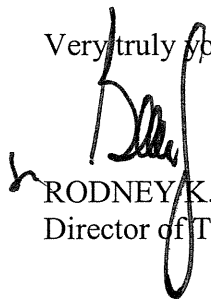
Mr. Isaac Davis Hall  
Page 13  
November 10, 2005

HAR-EP 7832.05

13. Regarding your comment that the conclusion/Draft EA should be withdrawn. We respectfully disagree with the commentator on the inadequacies of the Draft EA. However, the commentator's comments will be included in the Final EA, along with other comments received during the comment period for the review by the decision makers. Again, we respectfully disagree with the need for an EIS.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma at (808) 587-2503 of my Harbors planning staff.

Very truly yours,



RODNEY K. HARAGA  
Director of Transportation



**Brian T. Ishii**

**From:** Maui County Environmental Liaison [conservation@hawaii.rr.com]  
**Sent:** Monday, September 06, 2004 3:22 PM  
**To:** btishii@eknahawaii.com  
**Subject:** Kahului Harbor Improvements



Brian Ishii  
Edward K Noda & Associates  
615 Piikoi Street  
Honolulu Hawaii, 96714  
(808) 591-8553  
(808) 593-8551  
btishii@eknahawaii.com - email

Re: Public Comment on State of Hawaii, Department of Transportation, Harbors Division application to implement 2025 Kahului Commercial Harbor Master Plan short term projects

If the goal of the above-mentioned improvements is to accommodate a super ferry that transports passengers and vehicles interisland, there are many concerns which the current plan fails to address.

The question of how invasive species will be controlled is unanswered, as well as impacts to cultural and recreational areas. There is a cause for concern that drug trafficking between islands will rise as well.

Until a comprehensive plan is developed to manage threats posed by alien species, drug trafficking, and to mitigate impacts to recreational and cultural practices, Surfrider advocates for an interisland passenger ferry with appropriate public ground transit systems on all islands to accommodate people's transportation needs.

Surfrider requests that an environmental impact statement be required. Surfrider also requests standing to be kept abreast of the state's plans for Kahului Harbor.

Mahalo,

*Jan Roberson* -

P.O. Box 790549  
Paia, Hawaii 96779

Jan Roberson, MPA  
Maui Chapter Chair  
The Surfrider Foundation  
(808) 575-2716 - ph  
(808) 298-8254 - cell  
(808) 575-9321 - fax





**STATE OF HAWAII**  
**DEPARTMENT OF TRANSPORTATION**  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

**HAR-EP 7833.05**

November 14, 2005

Ms. Jan Roberson  
Chair, Maui Chapter  
The Surfrider Foundation  
P.O. Box 790549  
Paia, Hawaii 96779

Dear Ms. Roberson:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments on the subject document. We offer the following responses.

1. Regarding your question whether the goal of the proposed improvements are to accommodate a Superferry that transports passengers and vehicles between islands. The goals and objectives of the Proposed Project, are stated in the Environmental Assessment (EA) and are not to accommodate the Superferry. The improvements required by the Superferry include a loading barge and a ramp system. The project to provide the barge and ramp system has been declared exempt from the Hawaii Revised Statutes Chapter 343 process. This exemption is included in the Final EA.
2. Regarding your expressed concerns about invasive species, cultural and recreational areas, as well as the level of drug trafficking between islands. These issues are addressed in the EA as follows:
  - Alien species issue, Section 4.10.1.4.
  - Cultural issues, Section 4.9.
  - Drug trafficking and security issues, Section 4.18.
  - Recreational issues, Section 4.21.
3. Regarding your comment on the need for an Environmental Impact Statement (EIS). Under the Hawaii Revised Statutes, Chapter 343, an EIS is required if there is a significant impact to the environment by a proposed project. The studies and analyses conducted for the Draft EA indicate that the proposed projects will not create any significant impacts. Therefore, a Finding of No Significant Impact will be determined in the Final EA and no EIS will be required.

Ms. Jan Roberson  
Page 2  
November 14, 2005

HAR-EP 7833.05

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at 587-2503.

Very truly yours,

A handwritten signature in black ink, appearing to read "Rodney Haraga", with a stylized, flowing script.

RODNEY K. HARAGA  
Director of Transportation

TO: BRIAN ISHII

C. B. R.

# *Tropical Orchid Farm, Inc.*

*Huelo, Maui*

Via Fax and U.S. Mail (6 Pages including this page).

To:  
Director Mr. Rodney Hiraga  
Department of Transportation  
State of Hawaii  
869 Punchbowl St.  
Rm. 509  
Honolulu, Hawaii  
96813  
Fax: 808 587-2167

9-6-2004

RECEIVED

SEP 02 2004

EKNA SERVICES, INC.

From:  
Jeffrey Parker  
President, Tropical Orchid Farm, inc.  
P.O. Box 170  
Haiku, HI  
96708  
Fax 808 572-8917

Re: Comments on the Draft EA for the Kahului Harbor Improvements Project of the Hawaii Department of Transportation – Harbors Division.

Dear Mr. Hiraga,

To begin, I am very unhappy with the shoddy and woefully inadequate analysis evident in the DEA prepared by Brian Ishii and E.K. Noda & Associates. My complaints are many. I am a farmer whose livelihood is threatened by the ongoing failure of HDOT and HDOA to control the introduction of new and dangerous alien pest species. Increased arrivals of airplanes and ships, facilitated by HDOT's airport and harbor expansion projects, are the cause of the increasing alien pest problem which threatens diversified agriculture. Small, diversified agriculture is the fastest-growing sector of Hawaii's economy –so much is at stake.

1. The hiring via non-bid contract of Brian Ishii and E.K. Noda & Associates is an indication of reluctance to produce a fair and honest environmental review. Several years ago, officials from Haleakala National Park requested to be "consulting parties" in the preparation of the Kahului Airport EIS. They were told that they could not be "consulting parties". National Park officials then appealed to the President's Council on Environmental Quality. The Council ordered that U.S. Fish and Wildlife do a "Biological Opinion" on the risks posed by introduced alien species at Kahului Airport. They also ordered DOT to come up with an Alien Species Action Plan (ASAP). E.K. Noda & Associates and specifically Mr. Ishii were hired to facilitate those numerous ASAP meetings, meetings attended by representatives of many agencies, including HDOA, U.S. Fish and Wildlife, and officials from Haleakala National Park. So, Mr. Ishii and Noda are well aware of the risks of increased alien pest species when transportation infrastructure projects increase the number of arrivals. Yet, in this Harbor DEA, Mr. Ishii and Noda barely mention the alien species threat!

Mailing Address: P.O. Box 170 • Haiku, Maui, HI 96708 • Phone (808) 572-8569 • Fax (808) 572-8917

(cont.) Last August 2003, E.K. Noda & Associates were found guilty of making illegal and “false-name” political campaign contributions and received the largest fine in Hawaii history. Because during the investigation Mr. Noda and those involved were less than candid and provided the Campaign Spending Commission misinformation, extra fines were levied. Mr. Noda himself faced criminal prosecution for money laundering and making campaign contributions under false names.

These violations were occurring at roughly the same time as when the Airport EIS was being “accepted” by the “Accepting Authority”. The Accepting Authority, in this case, was Gov. Ben Cayetano. Ironically, many of the illegal contributions made by Noda and his employees, were made to Gov. Cayetano. Why would HDOT want to add to the appearance of corruption, by retaining these convicted criminals to prepare the DEA for the Harbor projects? Interestingly, the contract to prepare this DEA, whether it was a bid or non-bid contract, was awarded to Noda during the period that they were committing the violations, and before they were indicted (this is illustrated by the fact that the comment letters for the harbor project were solicited in Oct. 2002 – a period when the recipient of the illegal donations, Gov. Cayetano, was still in office.) Ironically, the \$74,000 in fines collected by the Campaign Spending Commission has now been refunded to Noda and Associates in the form of a [non-bid] contract to prepare this DEA.

Criminal activity aside, the Kahului Airport EIS is regarded by many as the most controversial environmental document in Hawaii’s history. It resulted in many court rulings, a contentious Contested Case Hearing at the State LUC, numerous contentious hearings at the County level, and actually caused serious divisions among members of our local community. Ironically this led to a treasure trove of new “work” for Noda & Associates – as they received additional contracts to patch up and supplement the deeply flawed EIS, and to “facilitate” numerous additional hearings and meetings, such as the aforementioned ASAP meetings. Why would HDOT not seek to turn over a new leaf, and hire an untarnished consulting firm to do this new Harbor analysis? Or put the contract out to bid?

In order to restore the public’s faith in the process, E.K. Noda and Associates must be removed from this assignment and the current DEA should be thrown out. Then a fresh DEA or DEIS can commence using an untarnished and neutral consulting firm.

2. The proposed project probably requires a full Joint Federal/State Environmental Impact Statement – not merely an EA. Your DEA does not disclose whether Federal monies are involved, but the DEA has disclosed that a permit is required from the Army Corps of Engineers. This indicates that Federal monies could be involved.
3. You (DOT) have not met your obligation to include members of the public or even important government agencies in the preparation of this document. For example, with only a few days left before the comment period ends, I found out that no comment letter was solicited from The Hawaii Department of Agriculture, the agency responsible for intercepting dangerous alien pest species. No comment letter was solicited from U.S. Fish and Wildlife, an agency which was greatly involved in the Kahului Airport Expansion EIS (a project with many similarities to the current Harbor expansion proposal). The DEA is worthless without significant consultations with at least these agencies and members of the public.

#### 4. Alien Species.

As a farmer who is constantly battling new pest species, I will discuss this aspect of the project first:



A. During the ongoing Kahului airport expansion controversy, it was stated many times by testifiers, scientists, and DOA & DOT officials, that Kahului Harbor was the “second main portal” for the arrival of new dangerous pests. However, in this DEA, the importance of the alien species is purposefully minimized. Section 4.10.1.4 does nothing to support the claim that there will be no impact regarding alien species. No effort is made to use the vast wealth of knowledge about alien species or mitigation measures gained in the very similar Kah. Airport controversy, over a decade. “DOT Harbors and DOT is participating in committees and task forces to monitor and resolve the potential introduction of alien pest species.” Where’s the data? What IS DOT doing about the problem? What is the track record of DOT and DOT-Harbors in interdicting pests? What alien species crises or threat has been “resolved” by DOT? How does DOT and DOT-Harbors “monitor” introductions? The issues should be very similar to those in the Airport case:

1. How many pest introductions per year through the harbor now?
2. How many inspectors/ personnel would be needed to effectively control incoming pests at an expanded harbor, with greatly increased arrivals?
3. Who will fill these new inspector slots? It is well-known that DOT has refused and still resists paying for new ag inspectors (even though Special Funds could be used). The DOT’s own Risk Assessment found that 19 full-time inspectors and 4 dogs would be needed to keep up with traffic at the airport now. However, after 3 years there still are only 4 or 5 full-time inspectors at the airport. (even though monies exist to pay for this).
4. Is there a need for a “state of the art” sealed quarantine building for the harbor facility?
5. Will there be a way to quickly destroy intercepted shipments containing pests, such as a walk-in deep freezer, or incinerator?
6. Will there be rigorous searches and inspections of incoming vehicles and heavy equipment? The brown tree snake came to Guam in heavy equipment.
7. Will disembarking passengers from the cruise ships receive inspections, be screened, or be asked to fill out an “ag-dec” form?
8. Will ships kitchens be allowed to bring in fruits and vegetables from other tropical ports of call, where extremely dangerous agricultural pests are commonplace?
9. If the new harbor facilities can handle more than 1 ship at a time, say 2 at once, up to 6000 passengers could be disembarking in Kahului on a given day. In the case of ships arriving from foreign ports of call, these passengers may have been recently exposed to, and carrying diseases such as Dengue Fever, Malaria, or West Nile Virus. West Nile Virus is not only a threat to humans, it is feared by scientists at the National Park because it could easily spread from humans to birds and the to Maui’s threatened native bird population. It also spreads to livestock, perhaps impacting our livestock industry. Any new DEA or DEIS should examine the risks to Mauians of new disease outbreaks due to increased disembarkations.
10. “The proposed improvements are not expected to increase the number and types of ships to Kahului Harbor and therefore, the improvements will not increase the amount of alien species introduced to Maui.” This is a dishonest and misleading statement apparently based on Noda and DOT’s belief that the project is not growth inducing. (See below “Project is Growth Inducing”).

B. Inter-island Super Ferry

Though barely mentioned in the DEA, the harbor expansion is clearly geared toward accommodating the new Inter-island Super Ferry, with its “365 calls per year”. I believe the unrestricted operations of the proposed ferry system represent a new major threat to our environment and agriculture.

1. The new Inter island Super Ferry will increase the risk of introduction of new pests. It will facilitate the rapid dispersal to other islands of new threatening pests like the Glassy-winged Sharpshooter, which now is only present on Oahu. Perhaps more importantly, it will act as a very efficient means of distribution for undesirable species. Campers, hunters, etc. will now be able to go everywhere say, on the Big Island, and then in a matter of hours be able to drive those same vehicles on every back road on Maui. It has already been proven that Coqui frog eggs can travel in mud splashed up underneath vehicles. The Big Island has over 20,000 acres infested with Miconia (“The Green Cancer”) Each Miconia flower produces 1 million seeds. These seeds may easily be picked up by camper or hunter vehicles and transported to Maui – then dropped out of the vehicles everywhere they go in Maui. The Inter-island Super Ferry ratchets up the alien species threat to a new level – perhaps undermining all the good work done by DOA, DLNR, Fish and Wildlife, and organizations like the Maui Invasive Species Committee (MISC), to combat the spread of invasive species.

Apparently, Noda and DOT-Harbors believe that the Ferry will come with or without the harbor improvements, so they don’t have to study the impact of ratcheting up the alien species problem. This is false and misleading, and is merely a device they are attempting to use to avoid having to look at the environmental impacts of these projects (See below “Project is Growth Inducing”.) This new elevated risk, from a new ferry system, must be studied in any valid DEA or DEIS.

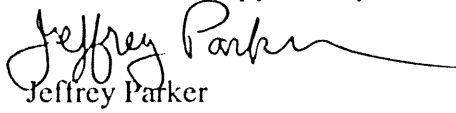
- a. Although late, the Department of Agriculture has instituted a much-needed “Interisland Coqui Frog Inspection Program” for travelers and cargo going from island to island. Will the Frog Inspection program be extended to the Inter Island Ferry System? Will passengers and automobiles be subjected to agricultural inspections? If so, where will the additional inspectors come from? Where will the money to hire the inspectors come from? Will passengers be required to fill out the Agricultural Declaration Form? They should.
- b. Persons involved in the dangerous illegal pet trade will find it much easier to move snakes and reptiles, and other creatures which could be devastating to Maui’s native ecosystem from island to island. Will there be inspectors on duty looking for this?

- C. I am also concerned that the inter island ferry will encourage the transport of detrimental illegal drugs like Crystal Methamphetamine (ICE). Presently, traffickers have a very difficult time getting through security at the airports. The new ferry system will make it very easy for smugglers to hide drugs in their vehicles and be on another island in just a few hours. The crystal methamphetamine (ICE) epidemic poses perhaps the second greatest threat to our communities’ well-being. The impact of easing drug running, with the consequence of flooding Maui with ICE, must be studied in any valid DEA or DEIS.

1. What type of police inspections of shipped autos and equipment will there be? Will the search for illicit drugs equal that being done at the airports?

- D. The 365 “calls” per year to Kahului by the new Ferry AND the 287 cruise ship calls poses a new threat for Maui’s citizens: Terrorism. Very easy for terrorists to plant a bomb in an automobile or even to hijack a cruise ship. Why does this DEA not discuss that possibility and mitigation measures? What kind of security measures will be in place? Will TSA get another contract to do this, and who will pay?
- E. A new roadway will be constructed between Pier 2C and Puunene Avenue. I do my banking at the First Hawaiian Bank there. It can be a very difficult to get out of Puunene Ave onto Kaahumanu or to go straight up Puunene at certain hours. It is obvious that this road connection is for the disembarking automobiles from the ferry to leave the harbor complex. The DEA says “The traffic increase will be during non-peak hours and therefore will not have a significant impact on the congestion at that intersection.” Are the hours of the ferry arrival known at this time? Is there a ferry schedule in place at this time? What are the non-peak hours? If this information is known, why isn’t it included in this DEA?
- F. IMPORTANT: The improvements at Kahului Harbor are simultaneously being proposed for other islands, notably for Nawiliwili Harbor on Kauai. There can be no doubt that many of these “improvements” are to facilitate the new ferry operation, an operation which may include many new types of impacts for Hawaii. The Inter Island Super Ferry is not just a single ferry, but rather a statewide system – and the impacts must be studied AS a statewide system. Any DEA or DEIS which attempts to study ONLY the impacts of the system on Maui will amount to a segmentation of the project. Segmentation is a fatal flaw when used in environmental documents.
- G. A new and separate DEIS, studying the complete impacts of Inter Island Ferry System, in total, is required.
- H. A glaring omission in the DEA is the lack of explanation about how the Forecast 2025 Ship Schedule was arrived at. While the container ship arrivals may be relatively easy to forecast, I don’t see any justification for the Domestic and Foreign Cruise Ship, or the Inter-island Ferry arrival numbers.
- I. Project is Growth Inducing.
1. The most important flaw in this DEA is the notion that “The proposed improvements are not expected to increase the number and types of ships to Kahului Harbor and therefore, the improvements will not [have significant impacts]” The consultants also put much faith in the idea that “the cruise ships and the ferry will come anyway, whether or not the improvements are made.” They seem to be relying on this one central idea to avoid actually having to study impacts. Yet, no data is presented to verify that the ships will come anyway. There are no comment letters from the cruise ship industry, nor were any solicited. I believe that many cruise ships would opt NOT to call at Kahului if the lack of facilities forced them to “park offshore and wait for moorings to become available.” Likewise, the promoters of the Ferry might have to rethink their operation if DOT-Harbors wasn’t so willing to bend over backwards to accommodate them. Therefore, the project is, of itself, growth inducing. It will make possible the arrivals of many more ships than are calling at present.

Thanks for the opportunity to comment.

A handwritten signature in black ink, reading "Jeffrey Parker". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Jeffrey Parker

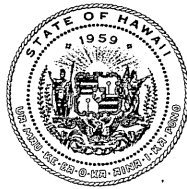
President, Tropical Orchid Farm, Inc.

Cc:

Brian Ishii, E.K. Noda & Associates

Iris Thompson Ishida, HDOT-Harbors

Gov. Lingle



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
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BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7834.05

November 14, 2005

Mr. Jeffrey Parker  
President  
Tropical Orchid Farm, Inc.  
P.O. Box 170  
Haiku, Hawaii 96708

Dear Mr. Parker:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comment on the subject document dated September 6, 2004. We offer the following responses.

1. Regarding your comment that the proposed project probably requires a full joint Federal/State Environmental Impact Statement (EIS). Under the Hawaii Revised Statutes (HRS) Chapter 343, an EIS should be prepared if there are significant impacts associated with a proposed project. The *Kahului Commercial Harbor 2025 Master Plan Environmental Assessment* (EA) concluded that there are no significant impacts and therefore, a Finding of No Significant Impact will be determined. In addition, if a federal environmental document is needed, it will be at the discretion of the approving Federal authority. This does not mean a joint document is needed and a joint document is neither a requirement of the National Environmental Protection Act or of HRS Chapter 343.
2. Regarding your comment that the Draft EA does not disclose whether Federal monies are involved, but yet a permit is required from the U.S. Army Corps of Engineers indicating that Federal monies could be involved. It is an incorrect assumption that the requirement for a Federal permit triggers the use of Federal funds. While the Harbors Division will be required to obtain the appropriate permits from the U.S. Army Corps of Engineers, the Harbors Division will not receive any funds from the U.S. Army Corps of Engineers or other Federal agencies for the projects described in the EA. Furthermore, the Draft EA's introduction states that State funds will be used.

3. Regarding your concern that the Department of Transportation has not met the obligation to include members of the public or even important government agencies in the preparation of this document. We disagree that the obligation to include the public or government agencies were not met. The EA is being prepared pursuant to HRS Chapter 343 and Hawaii Administrative Rules, 11-200.
4. Regarding your comment on the alien species issue. The measures for the control of alien species introduction are discussed in the EA Section 4.10.1.4. The Hawaii Department of Agriculture (HDOA), Hawaii Department of Health (HDOH) and other agencies have the responsibility for and jurisdiction over the prevention and mitigation of the introduction of alien species. In addition, the Hawaii Department of Land and Natural Resources (HDLNR), Division of Aquatic Resources (DAR) has jurisdiction over aquatic alien species. DAR's role will be described in the Final EA.

In addition, the following information will also be added to the Final EA.

Alien species can be introduced purposefully or incidentally, such as by hitchhiking on cargo or as stowaways in the containers. Therefore, many of the alien pest species hitchhike on commodities imported by businesses and residents of Maui County. This is shown in the results from the Kahului Airport Risk Assessment, which indicates that the passengers are typically a low risk pathway for the importation of alien species. The high risk commodities for the importation of alien pest species include plants and propagative plant parts. Other high risk commodities include organic produce, leafy greens (such as lettuce, cabbage and kale), cut flowers, strawberries, and peppers. Other high risk commodities which enter through the Harbor include Christmas trees and other plant material.

Once an alien species is established on one island, it is highly likely to spread to other islands, especially seeds and flying insects. The interisland dispersal pathways include, but are not limited to, seeds carried by birds, migration of birds, dispersal by wind and dispersal by ocean currents.

The HDOA has designated Kahului as a limited port-of-entry for overseas agricultural commodities, therefore only plants and plant products such as produce and cut-flowers are allowed entry. Live animals (except live seafood for consumption) and microorganisms from foreign and domestic origins are not allowed entry through Kahului unless inspected by HDOA in Honolulu prior to the transport to Kahului.

Therefore, pursuant to the HRS, Section 150A-5 any person transporting any agricultural commodity to Hawaii shall notify the HDOA and hold the commodity on the dock, pier, wharf, airport, air terminal where they are first received or discharged until inspection can be made by the Plant Quarantine Inspector. However, because there has always been a shortage of space at the piers, transportation companies have been requesting more inspections to be done at sites other than the dock or at the dock but before or after regular work time to allow for the containers to be moved from the docks. For the maritime operations, the shippers will reimburse the State for the inspector's cost to inspect the containers during overtime hours.

Although HDOA manpower is limited at other ports, the addition of DOT funded agricultural inspectors at Kahului Airport allows the non-Airport inspectors to work more hours at the Harbor to perform the necessary inspections. In addition, there are more inspectors to work overtime hours to inspect the incoming maritime commodities, if necessary.

Similarly, propagative agricultural commodities cannot move between islands without HDOA inspection. If this cargo is not inspected by HDOA, Young Brothers will not allow the cargo to be boarded onto the vessel. Non-propagative plant parts, such as cut flowers, fruits, vegetables and produce, need not be inspected provided that they are subject to random inspection by HDOA. Similarly, Hawaii Superferry is currently working on the HDOA requirements for their operations with HDOA and has included the following measures in their Tariff No. 1.

- *“Domestic cats and dogs **ONLY** may travel on Carrier’s [“Superferry”] vessels. No other animals are permitted except livestock and poultry from Hawaii Department of Agriculture (HDOA) licensed agricultural producers. Carrier does not permit the carriage of reptiles, snakes, birds (except HDOA registered poultry transported by registered growers), rodents or exotic species of animals of any kind.*
- *Only plants, flowers and crops that have either been inspected and passed at the HDOA Plant Quarantine Office or via the Nursery Self Certification Program may be transported on Carrier’s [“Superferry”] vessel. In all cases, a “Passed” sticker must be shown before plants will be allowed on the ferry. No other plants will be permitted on the ferry and must be left for destruction by Carrier’s [“Superferry”] personnel.”*

5. Regarding your concern that the harbor expansion is clearly geared toward accommodating the new Inter-island Super Ferry. The EA is not geared to the Superferry. As stated in the EA Sections 1.1 and 3.4, the EA is for the short-term 2025 Master Plan (the Master Plan was completed in 2000) improvements for Kahului Harbor.

To indicate this more clearly, the title shall be revised to 2025 Master Plan Improvements, Kahului Commercial Harbor. The Superferry is a recent (circa 2003) potential specific user of Kahului Harbor, and can use existing or proposed harbor facilities. The following *Kahului Commercial Harbor 2025 Master Plan* statement will be included in the text of the Final EA:

Berthing within the State's commercial harbors is generally not permanently assigned. Vessels entering the port are directed to their berths according to the shoreside facilities required and the availability of such berths.

6. Regarding your comment about the Superferry and alien species. Please refer to our response to alien species in comment 4, above.
7. Regarding your concern about the interisland ferry encouraging transport of detrimental illegal drugs like Crystal Methamphetamine (ICE). The "ice" drug epidemic is a serious concern for the entire State of Hawaii. However, the proposed improvements will not increase the amount of drugs coming in to or out of Maui. The interisland ferry will need security as other transportation modes, such as the airlines, under the authority of the U.S. Department of Homeland Security. The public safety concerns (which would include drugs) are addressed in the EA Section 4.18. Currently, the Superferry is working on a security plan. To clarify the security issue, the following will be added into the Final EA.

The "Superferry" is required by law (33 Code of Federal Regulations) to develop, implement and maintain a Hawaii Superferry Vessel Security Plan that is submitted to and approved by the U.S. Coast Guard. The Hawaii Superferry Vessel Security Plan must include the Superferry's security personnel, training, drills and exercises, record keeping, Maritime Security Level coordination and implementation, procedures for interfacing with terminal facility security, Declaration of Security, security systems and equipment maintenance, security measures for access control (including screening of vehicles and passengers), security measures for restricted areas, security measures for handling cargo, security measures for delivery of stores and bunkers, security measures for monitoring, security incident procedures, etc. The U.S. Coast Guard will monitor and enforce the security requirements of the Hawaii Superferry Vessel Security Plan. Whenever required, the Hawaii Superferry and the U.S. Coast Guard will request the assistance of the Maui Police Department, the State Department of



Public Safety Sheriff Division, the Federal Bureau of Investigation, the State Department of Defense, the State Department of Land & Natural Resources Enforcement Officers and the Department of the State Attorney General.

8. Regarding your concerns about terrorism. The public safety issue is discussed in the EA Section 4.18 and is under the jurisdiction of the U.S. Department of Homeland Security. The County Police Department, in association with State and private security services, presently provides security services to the Harbor. With regards to the ferry, please refer to the comments discussed in item 7, above.
9. Regarding your comment about a new roadway constructed between Pier 2C and Puunene Avenue. The Pier 2C and Puunene Avenue improvements will not be constructed under this EA and has been withdrawn from the proposed project.
10. Regarding your comment that the interisland Superferry is not just a single ferry, but rather a statewide system – and the impacts must be studied AS a statewide system. As stated previously, the proposed improvements are for a variety of users and not being proposed or constructed to accommodate the Superferry or any other specific user. The “Superferry” is not part of the proposed project as it will be able to use the existing piers at Kahului Harbor. Therefore a statewide system EA is not needed for the Kahului Commercial Harbor improvements.
11. Regarding your comment that a new and separate Draft EIS, studying the complete impacts of the Inter-Island Ferry System, in total, is required. Please refer to the comments discussed in item 10, above.
12. Regarding your comment that a glaring omission in the Draft EA is the lack of explanation about how the Forecast Ship Schedule was arrived at. As discussed in the EA Section 3.3, the forecast is based on a number of statistical studies and used to develop a reasonable basis for the *Kahului Commercial Harbor 2025 Master Plan*. During the Master Plan, high correlations between the annual weight of all cargo shipped to and from Maui and the per-capita Gross State Product were established and used to project the 2025 estimates of cargo tonnage.

During the master planning process, it was a reasonable assumption that an interisland ferry system may start within the planning period, as there have been other interisland ferries - although none of the previous interisland ferry ventures have been able to become a mainstay in interisland travel. The number and frequency of the ferry calls also would be reasonable to assume at least a one call per day service for an interisland ferry operation to remain viable.

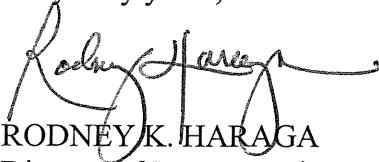
Mr. Jeffrey Parker  
Page 6  
November 14, 2005

HAR-EP 7834.05

13. Regarding your concern that the project is growth inducing. We respectfully disagree with the commentator that the proposed improvements at Kahului Harbor will cause growth. The amount of cargo is forecast based on the projected growth of the needs of Maui's population. As discussed in the various sections for water supply, solid waste, socio-economic impacts, etc., the forecast maritime demand is independent of the proposed improvements.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my Harbors planning staff at (808) 587-2503.

Very truly yours,

A handwritten signature in black ink, appearing to read "Rodney K. Haraga", with a stylized flourish at the end.

RODNEY K. HARAGA  
Director of Transportation

RECEIVED

SEP 09 2004

To Whom It May Concern,

EKNA SERVICES, INC.

This is in response to the information gathered regarding the expansion of Kahului Harbor. I feel that this expansion demands that an Environmental Impact Study be completed prior to the State allowing the powers that be to further dredge the harbor, install another pier, etc.

First, I am a paddler of 16 years and I started with Hawaiian Canoe Club as a teenager. I have watched the canoe club positively impact the lives of hundreds, if not over a thousand, children and adults of Hawaii. If we lose our vital training area and race venue, our island will be negatively impacted as we lose children to negative activities including drugs, theft, etc. We have witnessed changes in peoples' lives that cannot equate to monetary gain by expanding this pier. It would be a capitalist evil to allow this expansion at the cost of losing the State Sport's premier venue on Maui, home of Hawaiian Canoe Club.

Second, as an avid one man canoe paddler, how will paddlers get to the beach after paddling down the North Shore along with hundreds of recreational kayakers, surfers in the harbor, paddleboarders, windsurfers, etc.

Third, the environment must be addressed. How much new pollutant will go into Kahului Harbor. We have already seen a dramatic increase in peoples' sicknesses and infections, possibly due to these cruise ships invading our harbor?

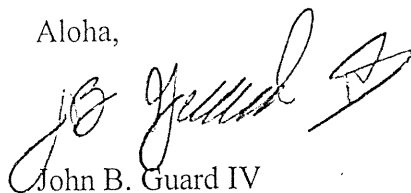
Fourth, until the Harbor figures out the 9/11 security upgrades and how to involve outrigger canoes, we have already lost the use of nearly 1/3 of the harbor. This is ridiculous as the water lost is typically the only calm water for our childrens' program to use.

We need a larger study to determine how to make this work for everyone. Maui has given away too much recreational space.

Why not expand out past the old Y Hata Building? That water is used only a fraction of the time and it would also relieve congestion in Kahului as people could enter through Beach Road or directly from Wailuku. This may be a revitalization for Wailuku Industrial.

Thank you for your time and I look forward to hearing back from you and possibly working with you on how to responsibly expand the Kahului Harbor.

Aloha,



John B. Guard IV

Broker in Charge

Coldwell Banker Island Properties

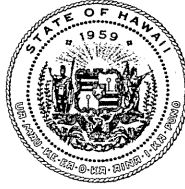
Hawaiian Canoe Club Member

MIL Paddling Coach

808.870.2227

P.O. Box 71120, Paia, HI, 96779





STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
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RODNEY K. HARAGA  
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BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7835.05

November 10, 2005

Mr. John B. Guard IV  
Broker  
Coldwell Banker Island Properties  
P. O. Box 791920  
Paiea, HI 96779

Dear Mr. Guard:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments on the subject document. We offer the following responses.

1. Regarding your comment on the need for an Environmental Impact Statement (EIS). Under the Hawaii Revised Statutes, Chapter 343, an EIS is required if there is a significant impact to the environment by a proposed project. The studies and analyses conducted for the *Kahului Commercial Harbor 2025 Master Plan Environmental Assessment* (EA) indicate that the proposed projects will not create any significant impacts. Therefore, a Finding of No Significant Impact will be determined in the Final EA and no EIS will be required.
2. Regarding your concern about the impact of the proposed improvements to canoe organizations. The Pier 2C improvements that could have impacted the canoe lanes has been removed from the proposed project and will not be constructed under this EA.
3. Regarding your concern about the lost of shoreline access. The proposed improvements will not impact shoreline access.
4. Regarding your concern over the level of new pollutants entering Kahului Harbor, possibly from the cruise ships. Pursuant to Hawaii Administrative Rules Section 19-42-127, "Littering or polluting of water prohibited," it is illegal to pollute or discharge either directly or indirectly anything other than clean water into any harbor. The U.S. Coast Guard and the Harbors Division enforce this law. Therefore, there will be no legal dumping or discharge of pollutants in harbor waters due to the maritime demand. A spill response team, whose equipment is strategically located within Kahului Harbor, is trained to respond immediately to spills and coordinate its efforts with the U.S. Coast Guard.

5. Regarding your comment about the impact of existing security rules and regulations. Maritime security is under the jurisdiction of the U.S. Department of Homeland Security.
6. Regarding your suggestion about a second harbor concept. The U.S. Army Corps of Engineers performed a study for a second commercial harbor facility on Maui in 1995 titled the *Maui Second Commercial Harbor, Navigation Study*. The study identified six alternatives and concluded that the second harbor would not have an adequate benefit-to-cost (B/C) ratio to justify the costs of developing the facility. In addition, the construction of a second harbor will take decades to complete and will incur significant environmental impacts. In fact, the study concluded:

Based on the July 1990 biological opinion, a proposed commercial harbor development in west Maui is likely to result in a jeopardy opinion<sup>1</sup> from NMFS [National Marine Fisheries Service].

Therefore, a second harbor is not considered a reasonable and feasible alternative and no further analysis will be conducted in this environmental assessment.

The computed benefit-to-cost (b/c) analysis results are shown in the table below and includes the impact of a 23-day and 39-day closure of the existing Kahului Harbor.

**TABLE 3-3  
BENEFIT-TO-COST RESULTS FOR SECOND MAUI HARBOR**

| SITE                         | B/C WITH 23-DAY CLOSURE | B/C WITH 39-DAY CLOSURE |
|------------------------------|-------------------------|-------------------------|
| Hata Bay Breakwater Harbor   | 0.08                    | 0.16                    |
| Maalaea Pier                 | 0.38                    | 0.50                    |
| Ukumehame Pier               | 0.50                    | 0.71                    |
| Olowalu Pier                 | 0.50                    | 0.71                    |
| Olowalu Dock & Turning Basin | 0.39                    | 0.56                    |
| Olowalu Dredged Harbor       | 0.27                    | 0.38                    |

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<sup>1</sup> A jeopardy opinion means that the project will jeopardize the continued existence of an endangered species.

Mr. John B. Guard IV  
Page 3  
November 10, 2005


HAR-EP 7835.05

In addition, the second harbor alternative does not meet the purpose of the project, as:

- it does not facilitate [in the short-term] maritime shipments of the essential commodities required by Maui County;
- it does not optimize the utilization of land and water resources committed to marine cargo and passenger operations in an economically responsible manner; and
- it does not minimize the impact on environmental quality and recreational opportunities contiguous with the Harbor.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at 587-2503.

Very truly yours,



RODNEY K. HARAGA  
Director of Transportation





Mr. Brian Ishii  
Edward K. Noda and Associates, Inc.  
615 Piikoi Street, Suite 300  
Honolulu, Hawaii 96814

RECEIVED

SEP 07 2004

88  
C.B.I.

Dr. Mr. Ishii,

EKNA SERVICES, INC.

On November 1, the canoe clubs on Maui first became aware that you had issued a DEA for the Kahului Harbor Improvements. I have been trying to obtain a copy. Apparently the only copy sent to Maui is the bound copy at the Kahului Library Reference Desk. At great time and expense I was able to copy some of the voluminous report but I am not able to review the entire document. On September 1, I visited the Kahului Harbor Office and, strangely enough, they had not received the report either. None of the canoe club representatives mentioned in the DEA were sent a report. I called the Oahu Harbors Division and requested a copy but they had only one and did not send it. I called you on 9/2 and requested a report be sent.

Obviously, the few days of time coupled with the inaccessibility of having only one report on Maui, which can't easily be copied, is adversely affecting the feedback you will get. In light of your failure to send copies to the affected organizations and even your own Harbor Office on Maui, and your lack in adequately notifying the community of its availability, it is clear that the comment deadline must be changed to be at least a month after the report is in our hands (The library is not accessible enough since we making copies is prohibitively expensive and time consuming there.)

I suggest that you extend the deadline to November 30, 2004. I demand that you at least extend it to 30 days after we became aware of its existence or October 1, 2004.

In reading the Draft Environmental Assessment (DEA) for the Kahului Commercial Harbor Improvements dated August 5, 2004, I find there are significant omissions and glaring inaccuracies and what can only be deliberate misrepresentation of the facts.

#### Section 1.1

"...the Pier 5 improvements, breakwater and channel improvements are on indefinite hold. The proposed Pier 5 improvements will not be constructed within the planning period due to the DOT-HAR budgetary goals and the results of the U.S. Army Corps of Engineers' *Wave Climate and Wave Response, 2025 Plan, Kahului Harbor 2002*. The results of this study indicate that the use of Pier 5 by large vessels will create operational problems, and the Pier 5 improvements will encounter significant wave surge conditions. When and if these ... projects become ripe for decision-making, an environmental analysis will be completed to determine...."

In other words, Pier 5 is physically infeasible **yet you are retaining it in the DEA**. The entire Pier 5 construction, dredging and breakwater needs to be removed from this DEA. This is a sneaky way of getting it past this part of the process without doing a full-scale EIS and without acknowledging that it is unworkable and should not even be considered further.

Recommendation: It is clear that the Pier 5 improvements must be completely scrapped as physically unworkable and eliminated entirely from the DEA.

Alternate Recommendation: If Pier 5 improvements are retained in this DEA, their impacts and mitigations must be thoroughly analyzed

and discussed. Either it is in or it is out. It can't be in as a proposal and not analyzed.

To leave Pier 5 in, is to keep an impossible project alive and to move it ahead by trickery. Once it passes this step, the effect is to accept a DEA on it and it will have escaped analysis.

"In the preparation of the EA, the comments from the pre-assessment consultation, the minutes of the public meetings during the 2025 Master Plan process, and comments on previous Environmental Assessments were reviewed. In addition, information was gathered from field visits, meetings...interviews with various community members and organizations."

The feedback from your community meetings was universally negative. The impacts that were brought up were ignored or were deliberately modified to seem less severe than they actually are. Deliberate misrepresentation of the effects on surfers, canoe paddlers, fishers and the residents of Maui is prevalent throughout this document. The rest of this discussion delineates the outright lies in this document. The implication that the paddler representatives mentioned as consulted said that these deceptively mild impacts were true is reprehensible. The DEA is supposed to be a objective document. Thus negative impacts should not be minimized, omitted or falsified as they are in this in the DEA. The bias shown by the preparer is obvious.

Recommendation: Go back to community and write their comments accurately.

### Section 1.2

"The Pier IC Mooring Dolphin is an improvement project which is covered under a separate Environmental Assessment, dated March 2004"

It is my contention, that you have separated the projects in order to circumvent the need for a full Environmental Impact Assessment on the entire project.

Recommendation: Pier IC Mooring Dolphin, even though approved and under construction, needs to be included with the rest of the projects and all of it needs a full-scale EIS.

### Section 1.3

"use of ...a practical": means that it won't be used.

Recommendation: Strike "as practical".

"Continue tenant-user meetings and communiqués of activities in the Harbor"

Our local Harbor office is very good about communicating the Federal Security regulations and the boat traffic to us. However, Oahu **did not even send our local harbor office a copy of this DEA!** Continue **WHAT** communication? We asked for a copy of the DEA and no one will send it to us. Our own harbors office doesn't even know about it or have a copy. We are referred to the library where we must hand copy a bound version of the DEA at an exorbitant cost in time and money, effectively preventing the majority of people from access in order to comment.

Library hours conflict with work hours thus preventing most interested parties from access to your DEA.

Recommendation: The deadline on comments on this DEA must be continued until such time as the DOT can provide adequate copies of it to interested parties. This means at least until November 30, 2004.

"The construction of Pier 2C will reduce the number of lanes for the canoe paddlers; however is not considered a significant impact."

This is an out and out lie. The construction of Pier 2C will completely eliminate the ability of the canoe paddlers to hold **any** races and will severely impact their ability to practice in the harbor.

In order to hold a regatta, high school race or Na Opio race we need a rectangular area that is 1452x760 feet (1/4 mile plus 3 canoe lengths of 44 feet) by (9 lanes times 80 feet + 40 on end).

The idea that we can use half the lanes and do twice the number of races is ludicrous and was never a proposed solution. In fact, if we had half the lanes, we'd have to run three times as many races (2 races for half the paddlers and then a race-off of the winners) Considering that regattas already run from 7:30pm to 5:00pm, that would require 28.5 hours of daylight which exceeds the amount available on a weekend. The fact that this ridiculous idea was included as a mitigation shows that there was inadequate information-gathering or that the preparer simply ignored or misrepresented community input.

Recommendation: Go back to the community and get correct facts this time.

#### Section 3.4:

"...as practical, the design will incorporate low-energy fixture and water saving devices"

Recommendation: Strike "as practical".

#### Section 3.5 Pier 2C Preferred Alternative

Recommendation: Include description of where the 10,000 square foot passenger terminal will be built.

Recommendation: Include alternative with smaller passenger terminal.

Recommendation: Include the estimated number of vehicles using Pu'unene due to the ferry.

Recommendation: Include wave study of effect of 800 foot pier (500' + 300') and riprap on currents and whether this will erode the beach.

Recommendation: Include water study on the effect of the stagnant water that will form between Pier 2c and the beach.

Recommendation: Include a diagram showing the area taken up by the ships and their security zones.

Recommendation: Strike "as practical".

### Section 3.5 Pier 2C 2010 Alternative

This alternative is not labeled as the preferred one although talks with Kahului staff indicate that it is, in fact, the preferred choice. Less preferred choices are usually included because they have smaller adverse impacts. This alternative has bigger impacts, so why was it included unless it is actually the preferred alternative?

Recommendation: Include effects of 30 ft dredging on beach erosion

Recommendation: Include drawing showing the fill, dock, road boats and their security zones in relation to the Hideaway restaurant, the two canoe hale and the hotels. Include scale.

Include drawing showing maximum ship size and their associated security zones.

Recommendation: Add section with Pier Notching Alternative.

Talks with Kahului Harbor Staff indicate that the most realistic alternative and one they are seriously considering is to notch the existing pier to accommodate the Ferry. The glaring omission of this alternative which is the one that is most likely to occur, makes the information in this DEA highly suspect.

### Section 3.6 (No build alternative)

Editorializing does not belong in this section. This is another example of the bias of the DEA preparer. No positive impacts such as continued Hawaiian cultural use, less danger of erosion damaging near buildings, bigger docking fees that can be collected, etc. are mentioned

Recommendation: Remove biased pro-project editorializing or include positive effects of not doing the project also.

### Section 4.6.3

#### Pier 2C Alternatives

What is the basis of the statement that Pier 2C will not have significant impact on the environment? Was a study done of the effect of changing the

currents on creating stagnant water where the tributary enters? On the effect of beach erosion?

Recommendation. Include beach erosion study of effect of pier structure, dredging and fill.

Recommendation: Include stagnant water study

Recommendation: Include traffic study of the impact of the number of cars on traffic for Ka'ahumanu Hwy and Pu'unene. This is a major commute intersection and is already choked with cars so that the intersection is blocked when the traffic backs up and people don't wait outside the intersection.

Page 31:

"The current cultural activities.... Current users include two paddling organizations."

This paragraph is a glaring example of how the community feedback was ignored or was just plain recorded incorrectly. Note that the canoes are stored on the beach in front of the hale and any erosion of the beach or increase in wave impact will adversely affect both the buildings and the canoes.

Canoe practice at both clubs takes place year round. Additionally, Lae Ula O Kai, the other north shore club, uses the harbor when conditions become too rough outside the harbor.

It should be clearly stated that Kahului Harbor is the **only** safe place on the north shore to practice during the high surf months and that without access to the harbor, all the north shore clubs will be severely impacted on their winter and spring training.

The statement that paddling season usually extends from March to September/October is false. The first 6-man **race** is in March and the last 6-man **race** is in November. Offseason high school and youth paddling takes place from December through February with races in the harbor. Both practice and racing extends year round and the 1-man races occur when the 6-man races are not running. The timing of races will most likely expand in coming years.

There is no mention that Pier 5 will totally eliminate one of Maui's best surfing spots. There is no mention that Pier 5 and Pier 2c and their associated security zones will most likely squeeze canoe racing into such a small area as to be impractical. New security zones have already impacted the canoe clubs so congestion creates problems. To reduce the area more will have a cumulative impact.

Recommendation: Change "Current users include two paddling organizations"

to Current users include two resident paddling clubs comprising of in excess of 500 people.

Recommendation: Replace “The paddling season usually extends from March to September/October” with “All 8 canoe clubs of the Maui County Hawaiian Canoe Association and the Maui Canoe and Kayak organization, comprising several thousand Maui residents use the harbor year round with regattas during the summer and high school races during the winter.”

Recommendation: Change “in back of Hoaloe Beach” to “on Hoaloe Beach”

Recommendation: Change “8 lanes” to “9 lanes including a rectangular area 1452’ x 760’. The ends of this area are marked with flags which have physical requirements which necessitate that the majority be placed in water shallower than 10 feet”

Recommendation: Add: “Kahului Harbor is the only safe place for paddlers to practice during the high surf months. Without access to the harbor and beach, all the north shore clubs will be severely impacted on their winter and spring training.”

Recommendation: Discuss the security zones. Include a drawing of the harbor with the proposed improvements with security zones drawn on it showing the canoe hale, Hideaway restaurant and hotels, drawn to scale with scale shown.

Page 33: Pier 2C Development

“The Pier 2C Preferred Alternative will have an impact on two or three canoe lanes.”

This statement is an out and out lie. Pier 2C will eliminate 3 or 4 outside lanes and the ability to hold any short races (high school or regatta) in the harbor.

“The reduction of racing lanes may require that the regattas be moved to Saturday and Sunday”

This is an infeasible mitigation made up out of thin air using a sarcastic comment that was meant to show the DEA consultant that eliminating even two or three lanes would make racing impossible. It again shows that the consultant was simply listening to community feedback with a selective filter and has rejected or distorted that feedback in order to create a misleading and false DEA.

“However, this impact is considered to be an insignificant impact to the canoe facility”

Another out and out bare-faced lie. This will be a major, huge impact on the canoe clubs and all several thousand MCHCA paddlers. It will not only eliminate 3 of the 7 regattas,

2 of the high school races and several of the Na Opio races which are held in the harbor but it will severely impact the ability of paddlers to practice in the harbor.

“The 2010 Alternative would eliminate the canoe facility at its present location and would force the canoe clubs to find another location for the races.”

Where are the mitigations? Where will the canoe clubs go? Lae Ula O Kai is the only north shore club based outside the harbor and even they need to use the harbor when the surf is big. What other sheltered water exists on the north side? What about the impact on MIL highschool paddling? On Na Opio youth paddling? What about the impact on the north shore kids who don't have transportation to practice elsewhere. There is no discussion of the role the clubs play in the cultural life of our youth especially our at risk youth. Hui Malama holds regular classes at the Hawaiian Canoe Club Hale.

There is no discussion of the “other location” for the races. We tried to hold the races at Kanaha park and had to rescue one of the crews who couldn't get back to shore. There is no other north shore venue suitable for canoe racing.

According to a staffer at the Kahului Harbor office the 2010 Pier 2c plan is actually the preferred plan, yet there is no discussion of the huge cultural impact of eliminating one of the 8 canoe clubs on Maui, the elimination of its Kamehameha Schools high school paddling, the elimination of high school races, regattas and Na Opio races in the harbor.

Recommendation: Include a detailed plan of where the canoe clubs will relocate to, how much it will cost, how this will be accomplished and who will pay for it. Include comments on relative safety of our child paddlers in any nonharbor north shore location.

#### Page 33 4.9.3 Mitigation Measures

Where is the discussion of relocating the canoe clubs? Although the 2010 Alternative is not listed as the preferred alternative, in my talks with a local DOT employee, that appears to actually be the preferred alternative.

This DEA is incomplete without a detailed plan for relocating the Canoe Clubs, include costs and actual locations approved by the clubs. This will necessitate more community meetings with MCHCA and the individual clubs.

“Although no or insignificant impacts are expected with the preferred improvements...”

Again, this is a lie and the preparer knew it was a lie when it was written. Also the “preferred improvement” of Pier 2c is perhaps the 2010 alternative. Why was this not coordinated with the Kahului office? Why was the 2010 alternative included if it was not the preferred alternative since it has far more negative impacts?

I request a copy of the letter from SHPD dated October 23, 2004 and more time in order to respond in an informed fashion.

The discussion of cruise ship waste and bilge water is inadequate. They may claim that they signed the MOU for discharge of water but what are the fines? These fines need to be substantial (e.g. in excess of 1 million dollars) and there needs to be a fund created to monitor the water so that we can enforce this. I can tell you from personal experience that the cruise ships are not complying with the MOU.

“Except for Pier 2C 2010 alternative, the proposed improvements will have an insignificant impact on marine biota”

What about the stagnant pool formed behind Pier 2c and its impact on health and odor for the adjacent businesses including a restaurant and hotels? This needs to be discussed and mitigation measures designed.

Page 43 section 4.21.2 Alternative Analysis

“The Pier 2C Preferred Alternative will have an impact on two or three canoe lanes”

This entire paragraph is false. It will eliminate regatta racing from the harbor and severely impact the clubs using the harbor for practice, acerbating the congestion caused by the new security regulations.

“The Pier 2C 2010 Alternative would eliminate the canoe facility at its present condition [sic]....”

And where does the State suggest that Na Kai ‘Ewalu go? Or is the state simply going to destroy an entire canoe club and its associated cultural and educational activities and its several hundred thousand dollar hale?

Na Kai ‘Ewalu hosts Kamehameha Schools high school paddling. Where will Kamehameha Schools paddlers go? Where will our at-risk youth paddlers in the Na Opio program go? Who is going to pay to relocate Na Kai ‘Ewalu? And the big question: Where on the north shore of Maui is there a protected water which is safe for our youth to paddle in during the school year when MIL and Na Opio paddling occur?

Page 1c Section 5.0

“(1) Involves in irrevocable commitment to loss or destruction of any natural or cultural resource...”

“While the construction of Pier 2C, preferred alternative, will remove several canoe racing lanes, this is not a significant loss to the use of the area.”

This is inaccurate and an out and out lie. It will mean that we cannot hold any of our regattas, high school races or Na Opio youth races in the harbor and will severely impact the use of the harbor for practice. There is no discussion of the security zone and how far it extends. Since this information was not included on a drawing showing the harbor, canoe hale etc. we can not evaluate whether this might completely eliminate even practice paddling in the harbor.



The 2010 Pier 2c alternative will irrevocably destroy a long-time canoe club and its cultural practices and educational programs including the hosting of the Kamehameha Schools paddling program. Why wasn't this information and its mitigation included?

"(2) Curtails the range of beneficial uses of the environment."

"This action will not curtail the range..."

Another out and out lie. It will eliminate or reduce paddling.

Pier 5 (which, if it is included in this document must be mentioned and discussed) will eliminate surfing at one of Maui's best surf spots. It may also eliminate access to the boat ramp.

(3)Conflicts with the state's long-term environmental policies..."

"...enhancement of the quality of life...it will provide a port that will be able to meet the existing and forecast demand..."

No mention made that this is mostly for the cruise ships and ferry and that it will possibly destroy a canoe club, eliminate a 30 year history of regattas in the harbor, curtail a 1000 year cultural use of the harbor, impact the cultural activities of Kamehameha Schools and cultural and educational practices associated with paddling.

This is so deceptive and false, it makes glaringly obvious the consultant's pro-project bias.

"(4)... The proposed action will provide a positive effect on the economic and social welfare of the community..."

However it will negatively impact the **residents** who paddle and surf and observe Hawaiian cultural practices.

The writer goes on to say "In addition, with the growth in the cruise ship industry, the proposed actions will provide facilities for these activities to continue..."

Hey wait, didn't the writer previously say that this project would **not increase the number of ships**? This inconsistency again points out the writer's pro-project bias and distortions.

"(6)...effects on public facilities"

Traffic? No study. No mention. Writer completely ignores the effect of the ferry and cruise ship traffic on Ka'ahumanu and Pu'unene's already over-congested rush hour traffic. This DEA is glaringly incomplete and once again, deceptive. No mention on the impact of eliminating the boat ramp on other boat ramps if Pier 5 is built.

"(7) degradation of environmental quality"

No mention of the oil from all the traffic going to the ferry on the Pu'unene extension washing into the semi-closed system of Kahului Harbor. No mention of the exhaust from the idling cars waiting for the ferry. No mention of the paving over of Hoaloha park. The finding of no significant degradation is unsubstantiated. The writer simply ignored discussion of anything that could impact.

“(8) ...The proposed action does not involve a commitment to larger actions, nor would the cumulative impacts result inn....”

The writer has ignored the current Pier 1 dolphin extension, the new imposition of security zones and the Pier 5 proposal. This development is already part of a chain of cumulative impacts that are reducing citizen recreational paddling and subsistence fishing in the harbor.

“(10)...water quality....would not be detrimentally affected...long term”

No discussion of stagnant water and concreted waterway behind the Pier 2c extension. This conclusion is reached by ignoring discussion of potentially negative impacts.

“(11)....beach, erosion-prone area...coastal waters..”

DEA does not discuss stagnant water of beach erosion problems. To ignore studying their effects is not the same as saying they have no effect. This statement is unsubstantiated by facts.

Given the short amount of time, my assessment stops at the Executive Summary of the Cultural Assessment. I request that you extend the deadline for comments based on your lack of proper notification and dissemination of the DEA.

I request that the Cultural Assessment be redone so that it is accurate.

I request that a complete discussion of the effects and mitigations for the Pier 5 work be included or that mention of Pier 5 be removed from this DEA.

I request that a full scale EIS be done on these projects as they have been artificially separated so as to go "under the radar".

I request that Oahu and Kahului discuss which Pier 2 alternative is actually the preferred.

I request that you include mitigation for the destruction of Na Kai 'Ewalu Canoe Club's paddling area.

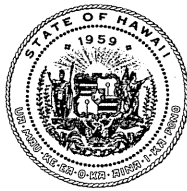
I request that you include what I am told is the actual plan for the ferry, namely notching the existing harbor.

This document is inaccurate and should be scrapped and redone with truthful, accurate information.

Sincerely

Karen Chun  
87 Lac St.  
Paia HI 96779  
(808) 579-9328





STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7836.05

November 14, 2005

Ms. Karen Chun  
87 Lae Street  
Paia, Hawaii 96779

Dear Ms. Chun:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments on the subject document. We offer the following responses.

1. Regarding your request for a copy of the *Kahului Commercial Harbor 2025 Master Plan Draft Environmental Assessment* (Draft EA), your request to have the deadline extended and your comments regarding the Draft EA. A copy of the Draft EA was mailed to you and pursuant to your request, the deadline for your comments was extended to September 20, 2004. We respectfully disagree with your comment that the document has significant omissions, glaring inaccuracies and misrepresentation of the facts.
2. Regarding your request for the status of the Pier 5 improvements. As stated in Draft EA Section 1.1:

The intermediate- and long-range projects identified in the 2025 Master Plan that are **not** [emphasis added] covered by this EA include the construction of a new Pier 5 and associated dredging for the turning basin.

3. Regarding your opinion that the feedback from the community meetings that was held on Maui was universally negative. We respectfully disagree with your interpretation of the general feeling of the community meetings.
4. Regarding your comments about the Pier 1C Mooring Dolphin and all of it needing a full-scale Environmental Impact Statement (EIS). The Pier 1C Mooring Dolphin project is included in the Environmental Assessment as part of the Pier 1D Improvements to ensure that the cumulative impacts of all of the projects in the Harbor are assessed. An EIS is only required if there is a significant impact. Based on the current analysis, there are no significant environmental impacts associated with the Pier 1C Mooring Dolphin project or with the proposed project, therefore an Environmental Impact Statement will not be prepared.

5. Regarding your request that the word *practical* be removed from the EA Section 1.3: “use of...a *practical*.” We respectfully disagree with your interpretation of the sentence, therefore, the word *practical* shall remain in the document.
6. Regarding the impacts of the construction of Pier 2C. The Pier 2C improvements will not be constructed under this Environmental document and therefore, removed as part of the proposed project.
7. Regarding your suggestion that the word *practical* be removed from the EA Section 3.4: “...as *practical*, the design will incorporate low-energy fixture and water saving devices.” We respectfully disagree with your interpretation of the sentence, therefore, the word *practical* shall remain in the document.
8. Regarding your comment about Draft EA Section 3.5, Pier 2C Preferred Alternative. The Pier 2C improvements will not be constructed under this environmental assessment and have therefore been removed from the proposed project. As far as the Superferry, the notch alternative is specific to the Superferry and is not an alternative considered at this time, due to the operational impacts on Young Brothers’ operations. At this time, the Superferry will use the existing Pier 2 for its operations.
9. Regarding your comments about the Pier 2C 2010 Alternative. As required as part of HRS 343, the document must analyze the proposed project and alternatives. As this alternative was proposed in an earlier Master Plan, it was included in the analysis. We respectfully disagree with your comment that alternatives always have a lesser impact. As discussed, the Pier 2C proposed projects including the respective alternatives were removed from the proposed project and not considered in the Final EA.
10. Regarding your comment about editorializing in the Draft EA Section 3.6. We respectfully disagree with your interpretation that there is editorializing in this section.
11. Regarding your comment on the impact of the Pier 2C Alternatives as it relates to the impact on historical sites. The Pier 2C improvements will not be constructed under this environmental assessment and therefore, removed as part of the proposed project. A copy of the SHPD letter dated October 23, 2003 is included in Appendix A.
12. Regarding your comment on the Draft EA Section 5.0. We respectively disagree with your comments on our determination of the significance of the impacts on the community and environment. As stated above both the Pier 2C and Pier 5 developments are not part of the proposed project and therefore not analyzed in this EA. As stated above, the Superferry will use the existing Pier 2 berth.

Ms. Karen Chun  
Page 3  
November 14, 2005

HAR-EP 7836.05

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at (808) 587-2503.

Very truly yours,

A handwritten signature in black ink, appearing to read "Rodney K. Haraga", with a long horizontal flourish extending to the right.

RODNEY K. HARAGA  
Director of Transportation





Mr. Brian Ishii  
Edward K. Noda and Associates, Inc.  
615 Piikoi Street, Suite 300  
Honolulu, HI 96814

Mr. Ishii,

On Tuesday, September 7, 2004 I had just learned about the expansion  
Of the Kahului Harbor – Pier2 and was very upset to learned that the deadline  
For comments is today – September 7, 2004 – I did not hear or read about any  
Public hearing on this matter but someone mention it to me that it was about  
Two years ago – I would like you to extend the deadline on comments until a receive  
A copy of the DEA, based on failure to properly notify involved parties.  
The DEA understates and misrepresents the impact on canoe paddlers  
We need the harbor so we can have a safe place for all our young paddlers in the  
Na Opio program , King Kekaulike, Kamehameha Schools to practice.  
Also we hold our regattas at the harbor – which is a safe place for all parties involved  
We practice & or race all year long –  
I request that they include one of the Pier 2 alternatives (notching ) for the ferry.  
I request that they include mitigations for the canoe clubs and should include specific  
plans for relocating the North Shore canoe clubs, providing them with safe water to  
practice and race in.  
I request that the drawing include proposed project with ship and security zones drawn to  
scale and shown relative existing restaurants, hotels and canoe clubs.

Sincerely,

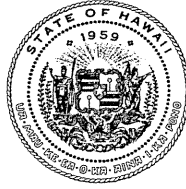


Kay Badayos  
17 Ani Street  
Kahului, HI 96732  
(808) 877-6097

RECEIVED  
SEP 07 2004

EKNA SERVICES, INC.

LINDA LINGLE  
GOVERNOR



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7837.05

November 14, 2005

Ms. Kay Badayos  
17 Ani Street  
Kahului, Hawaii 96732

Dear Ms. Badayos:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments on the subject document. We offer the following responses.

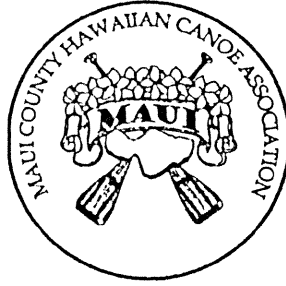
1. Regarding your comment on the lack of a public hearing. There is no requirement to have a public hearing for a draft environmental assessment. A copy of the *Kahului Commercial Harbor 2025 Master Plan Draft Environmental Assessment* is available at the Kahului Public Library.
2. Regarding your concern about the impacts of the proposed improvements on the canoe paddlers and the Pier 2 alternatives (i.e., notching of Pier 2B) for the ferry. The Pier 2C improvements have been withdrawn from the proposed project and will not be constructed under this Environmental Assessment. The notching of Pier 2B is not being considered. The Superferry's operation will utilize the existing Pier 2.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at 587-2503.

Very truly yours,

A handwritten signature in black ink, reading "Rodney K. Haraga", is written over a horizontal line.

RODNEY K. HARAGA  
Director of Transportation



RECEIVED  
SEP 09 2004

EKNA SERVICES, INC.

Mr. Brian Ishii  
Noda & Associates  
615 Piikoi Street, Suite 300  
Honolulu, HI 96814

Re: Draft Environmental Assessment for Kahului Harbor

Dear Mr. Ishii:

I write on behalf of the Maui County Hawaiian Canoe Association (MCHCA), a non-profit organization that serves thousands of youth and adult paddlers on the island of Maui. It is my understanding that in addressing and evaluating the impact of modifications to the Kahului Harbor and its piers, you have deemed the impact on the paddling community to be **non-significant**.

This is incredibly discouraging. Although the physical impact to our races and practice area will be significant (i.e. we will not be able to use the harbor for official events), the impact is even more pronounced when you look at what the canoe clubs provide to the community.

Hawaiian Canoe Club has hundreds of members, young and old. Their leadership focuses on Hawaiian culture, education and paddling. As they have several teachers in leadership roles, they are in a unique position to serve the youth members of our island. They have the largest kids program on island and promote healthy living through exercise. They also have a day care facility and run a program that gives our teenagers a place to go to obtain help with homework and tutoring. They also have a computer center available for the youth to utilize. Hawaiian also shares their hale with hula organizations and other groups that promote the Hawaiian culture.

Na Kai Ewalu is a growing club that has been through hard times. They are gaining membership and have in place a strong group of leaders positioned to take them forward. They are dedicated to the preservation of the Hawaiian culture and have begun developing youth and novice programs that reach out to people in the community.

If the harbor changes as you are suggesting, it will not be possible for these two worthy clubs to continue to function at the harbor. Furthermore, Lae Ula O Kai is staged at Kanaha and commonly comes into the harbor during their training runs. This is also true for Maui Canoe and Kayak, the organization that hosts the OC-1, OC-2, kayak and paddleboard competitions. In the event the new facilities are built as suggested, the vessel traffic and secure zones surrounding the vessels and piers would make use of the harbor for any recreational pursuit impossible.

I know that testimony was received from the paddling community. I also know that those who testified were not in favor of the alterations and that many of their comments were modified or taken out of context and used to bolster the Environmental Assessment. I am even more concerned that an Environmental Assessment is all that has been required. Why is there not a full Environmental Impact Report? Why are further hearings not being required and why is only one copy of the draft report available on island? Why, when we call, can we not obtain other copies?

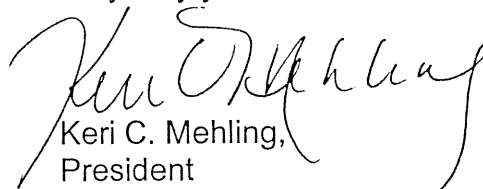
I believe further serious considerations need to be given to the following issues:

1. Environment: What is the impact of the volume of vehicle traffic in the area? What is the potential for further degradation of the water quality in the harbor due to leaks and runoff that now contain more oil, fuel and other hazardous materials? What is the noise impact? What is the impact on air quality?
2. Harbor Use: What is the **real** impact to the non-commercial community? It appears the surf break will be eliminated. It appears that fishing vessels and other recreational vessels will be limited in their use of the harbor due to security zones. It appears that the paddling community will not be able to practice in the harbor nor will they be able to host regattas there as a minimum of 10 lanes are required.
3. Traffic: What is the impact on the traffic flow in the area? Where is all of the staging going to take place? Is the amount of room provided for staging realistic?
4. Future: What are the long term goals for the development of the harbor? As more piers and staging areas are built, are more commercial operators going to be allowed use of the area to the exclusion of non-commercial entities?

I fully understand that change is going to happen and that it is not always pleasant. However, it is not appropriate to proceed with any harbor project without full and adequate consideration being given to all of the concerns. The draft report as presented is not accurate. The draft report takes comments and concerns out of context and presents unrealistic "solutions" (i.e. just hold regattas over several different days). Please reassess this project in an appropriate manner.

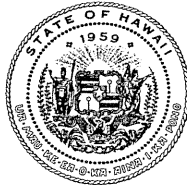
Thank you for your consideration of my concerns.

Very truly yours,



Keri C. Mehling,  
President

Maui County Hawaiian Canoe Association



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7838.05

November 14, 2005

Ms. Keri C. Mehling  
President, Maui County Hawaiian Canoe Association  
c/o Hawaiian Canoe Club  
P. O. Box 5053  
Kahului, HI 96733

Dear Ms. Mehling:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments on the subject document. We offer the following response.

1. Regarding your comment on the need for an Environmental Impact Statement (EIS). Under the Hawaii Revised Statutes Chapter 343, an EIS is required if there is a significant impact to the environment by a proposed project. The studies and analyses conducted for the *Kahului Harbor 2025 Master Plan Environmental Assessment* (EA) indicate that the proposed projects will not create any significant impacts. Therefore, a Finding of No Significant Impact will be determined in the Final EA and no EIS will be required.
2. Regarding your comment on the lack of a public hearing. There is no requirement to have a public hearing for a draft environmental assessment. A copy of the Draft EA is available at the Kahului Public Library.
3. Regarding your concerns about traffic, noise and air quality impacts, and the potential for further degradation of the water quality in the harbor. The findings of the formal analyses for these environmental impacts are stated in the Draft and Final EA Section 4. Please refer to the following sections for information pertinent to your comments.

|               |              |
|---------------|--------------|
| Traffic       | Section 4.22 |
| Water Quality | Section 4.8  |
| Noise         | Section 4.4  |
| Air Quality   | Section 4.3  |

4. Regarding your concern about the overall impacts to the non-commercial community. The proposed project will not impact the surf break on the western half of Kahului Harbor. In addition, the Pier 2C improvements have been withdrawn from the proposed project and will not be constructed under this Environmental Assessment. In accordance with Hawaii Revised Statutes (HRS) Chapter 266, the Harbors Division's statutory authority covers the commercial use of its facilities. HRS Chapter 266-1 states:

for the purpose of this chapter, "commercial harbor" means a harbor or off-shore mooring facility which is primarily for the movement of commercial cargo, passenger and fishing vessels entering, leaving, or traveling within the State, and facilities and supporting services for loading, off-loading, and handling of cargo, passengers and vessels.

The Harbors Division's statutory authority does not extend to recreational activities and recreational use of its commercial harbors. Also, the U.S. Coast Guard has the authority for security zones within the Harbor. If the security threat level is high enough, only authorized users will be allowed into Kahului Harbor.

5. Regarding your concern about the impacts on the traffic flow and staging in the area. As stated in the EA Section 4.22, the impact of traffic from the proposed improvements will be insignificant. The staging site for cruise ships is on Pier 1 and is adequate for the cruise ship's operational needs.
6. Regarding your question about the long-term development goals for Kahului Harbor. As stated in the EA Section 3.2, the Harbors Division plans to improve Kahului Harbor with the following objectives in mind:
  - a. Plan the proper development of Kahului Harbor, thereby facilitating maritime shipments of the essential commodities required by Maui County.
  - b. Optimize the utilization of land and water resources committed to marine cargo and passenger operations in an economically responsible manner.
  - c. Provide terminals, other harbor resources, and access to these facilities in locations within Kahului Bay and other locations in a manner that best relates to and serves Maui in an efficient, safe and secure manner.
  - d. Minimize the impact on environmental quality and recreational opportunities contiguous with the Harbor.

Ms. Keri C. Mehling

HAR-EP 7838.05

Page 3

November 14, 2005

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at (808) 587-2503.

Very truly yours,

A handwritten signature in black ink, appearing to read "Rodney Haraga", with a long horizontal line extending to the right.

RODNEY K. HARAGA  
Director of Transportation





16156 Haleakala Highway  
Kula, Maui, Hawai'i 96790  
Phone (808) 878-3642  
E-mail enomote002@hawaii.rr.com  
September 8, 2004

RECEIVED  
SEP 09 2004  
EKNA SERVICES, INC.

Mr. Brian Ishii  
Noda & Associates  
615 Pi'ikoi Street, Suite 300  
Honolulu, Hawai'i 96814  
Facsimile (808) 593-8551

To whom this may concern,

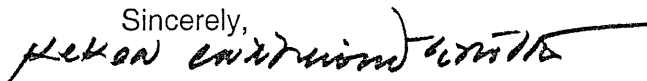
I protest a proposed 500-foot pier and 10,000-square-foot ferry terminal encroaching on the Hoaloha Beach Park recreational area and outrigger canoe practice/regatta site for two reasons. First, building the pier and terminal as proposed would be akin to constructing a two-lane freeway on-ramp through the middle of the Pebble Beach Golf Course: You take a treasured sports venue and, by means of an obtrusive aspect of transportation, pre-emptively wipe out one-fourth of its fairways, i.e., nine of its 36 holes. That is what you are proposing by reducing the 12-lane outrigger canoe regatta course by three lanes.

Secondly, encroachment by the ferry pier/terminal would be the same as desecrating Notre Dame Cathedral by ripping away its nave and half of its buttresses, because off-shore of Hoaloha Park is the site of many Native Hawaiian spiritual and cultural activities, such as the spreading of cremains; regular Sunday morning paddling gatherings affectionately called "Choppy Waters Church"; and lone kayak/meditational runs — all in the lee of emerald green 'Iao Valley and West Maui Mountains to the north, and with the sun breaking over Haleakala crater to the east.

Just as Notre Dame is an irreplaceable symbol of art and architecture, so Hoaloha Park/Kahului Harbor represent a uniquely precious, safe and accessible venue for Maui's ocean athletes, especially the more than 200 youth paddlers who are kept off the streets by traditional, healthful, constructive activities.

Therefore, I object strongly to the proposed 500-foot pier 2C and 10,000-square-foot ferry terminal, and seek an alternative or compromise that would safeguard the "Pebble Beach/Notre Dame" of outrigger canoe paddling to the more than 350 members of the four-time defending state champion Hawaiian Canoe Club and of the neighboring Na Kai 'Ewalu canoe club along with the rest of the paddling/kayaking community on the Valley Isle.

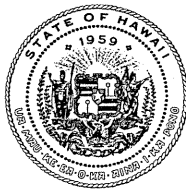
Sincerely,



Kekoa Catherine Enomoto

Copy editor and columnist, The Maui News  
Secretary, Keokea Hawaiian Homes Farmers Association  
Six-year member, Hawaiian Canoe Club

LINDA LINGLE  
GOVERNOR



**STATE OF HAWAII**  
**DEPARTMENT OF TRANSPORTATION**  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7839.05

November 14, 2005

Ms. Kekoa Catherine Enomoto  
16156 Haleakala Highway  
Kula, Hawai'i 96790

Dear Ms. Enomoto:


Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comment on the subject document dated September 8, 2004. We disagree with your opinion and offer the following response.

Regarding your concern about impacts related to the construction of Pier 2C. The Pier 2C improvements will not be constructed under this Environmental Assessment and has been withdrawn from the proposed project.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at 587-2503.

Very truly yours,

  
RODNEY K. HARAGA  
Director of Transportation

**MARK SHEEHAN**  
**630 E. Kuiaha Road**  
**Haiku, HI 96708**

Ms. Iris Ishida Thompson  
Dir, Dept. Transportation, Harbors Div.  
79 So Nimitz Hwy  
Honolulu, HI 96813

Dear Ms. ~~THOMPSON~~ THOMPSON

Please list me as a consulted party for the EA about the Kahului Harbor improvements.

I am concerned about the potential for importing alien species into Maui as the number of cruise ships increases and as the interisland car/passenger ferry comes into use. There is a point of view that the improvements themselves will not result in an increase in ship arrivals. If so, then why make improvements? If, on the other hand, there may be a tripling of arrivals, an EIS should be required to deal with the tremendous impacts.

Having been a consulted party on the proposed expansion of the Maui airport, I have to ask—as I did with the airport—How many additional agricultural inspectors will be required to inspect departing passengers and vehicles? Where will the funds come from to pay for these inspectors.

There must be sufficient safeguards taken to prevent catastrophic economic losses when diseases and pests are allowed into the island. Think miconia, kudzu and coqui frogs.

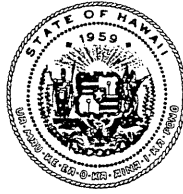
Sincerely,



Mark Sheehan

CC: Ms. Iris Ishida Thompson  
Gov. Linda Lingle  
Sen. J. Kalani English  
Rep. Sol Kaoohalahala





STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP  
7840.06

November 10, 2005

Mr. Mark Sheehan  
630 East Kuiaha Road  
Haiku, Hawaii 96708

Dear Mr. Sheehan:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – Job H. C. 3334

Thank you for your comments on the subject document. We offer the following responses.

1. Regarding your request to be listed as a consulted party. If an Environmental Impact Statement (EIS) is prepared in the future, you will be listed as a consulting party. However, a Finding of No Significant Impact will be determined in the Final Environmental Assessment and no EIS will be required.
2. Regarding your comment on the alien species issue. The measures for the control of alien species introduction are discussed in the Environmental Assessment (EA) Section 4.10.1.4. The Hawaii Department of Agriculture (HDOA), Hawaii Department of Health (HDOH) and other agencies have the responsibility for and jurisdiction over the prevention and mitigation of the introduction of alien species. In addition, the Hawaii Department of Land and Natural Resources (HDLNR), Division of Aquatic Resources (DAR) has jurisdiction over aquatic alien species. A description of HDLNR-DAR's role will be added to the Final EA.

In addition, the following information will also be added to the Final EA.

Alien species can be introduced purposefully or incidentally, such as hitchhiking on cargo or stowaway in the containers. Therefore, many of the alien pest species hitchhike on commodities imported by businesses and residents of Maui County. This is shown in the results from the Kahului Airport Risk Assessment, which indicates that the passengers are typically low risk pathway for the importation of alien species. The high-risk commodities for the importation of alien pest species include plants and propagative plant parts. Other high-risk commodities include

organic produce, leafy greens (such as lettuce, cabbage and kale), cut flowers, strawberries, and peppers. Other high-risk commodities, which enter through the Harbor, include Christmas trees and other plant material.

Once an alien species is established on one island it is highly likely to spread to other islands, especially seeds and flying insects. The inter-island dispersal pathways include, but are not limited to, seeds carried by birds, migration of birds, dispersal by wind and dispersal by ocean currents.

The HDOA has designated Kahului as a limited port-of-entry for overseas agricultural commodities; therefore only plants and plant products such as produce and cut flowers are allowed entry. Live animals (except live seafood for consumption) and microorganisms from foreign and domestic origins are not allowed entry through Kahului unless inspected by HDOA in Honolulu prior to the transport to Kahului.

Therefore, pursuant to the HRS, Section 150A-5 any person transporting any agricultural commodity to Hawaii shall notify the HDOA and hold the commodity on the dock, pier, wharf, airport, air terminal where they are first received or discharged until inspection can be made by the Plant Quarantine Inspector. However, because there has always been a shortage of space at the piers, transportation companies have been requesting more inspections to be done at sites other than the dock, or at the dock but before or after regular work time to allow for the containers to be moved from the docks. For the maritime operations, the shippers will reimburse the State for the inspector's cost to inspect the containers during overtime hours.

Although HDOA manpower is limited at other ports, the addition of DOT funded agricultural inspectors at Kahului Airport allows the non-Airport inspectors to work more hours at the Harbor to perform the necessary inspections. In addition, there are more inspectors to work overtime hours to inspect the incoming maritime commodities, if necessary.


Similarly, propagative agricultural commodities cannot move between islands without HDOA inspection. If this cargo is not inspected by HDOA, Young Brothers will not allow the cargo to be boarded onto the vessel. Non-propagative plant parts, such as cut flowers, fruits, vegetables and produce, need not be inspected provided that they are subject to random inspection by HDOA.

Similarly, Hawaii Superferry is currently working on the HDOA requirements for their operations with HDOA and has included the following measures in their Tariff No. 1.

- *“Domestic cats and dogs **ONLY** may travel on Carrier’s [“Superferry”] vessels. No other animals are permitted except livestock and poultry from Hawaii Department of Agriculture (HDOA) licensed agricultural producers. Carrier does not permit the carriage of reptiles, snakes, birds (except HDOA registered poultry transported by registered growers), rodents or exotic species of animals of any kind.*
  - *Only plants, flowers and crops that have either been inspected and passed at the HDOA Plant Quarantine Office or via the Nursery Self Certification Program may be transported on Carrier’s [“Superferry”] vessel. In all cases, a “Passed” sticker must be shown before plants will be allowed on the ferry. No other plants will be permitted on the ferry and must be left for destruction by Carrier’s [“Superferry”] personnel.”*
3. Regarding your comment about maritime demand and improvements. As stated in the EA Section 3.2, “the proposed projects will ensure efficient, safe, accessible and economical harbor operations to meet existing and forecast maritime demands.” In addition, the maritime demand is forecast to rise with or without the proposed improvements and is a function of the project growth of Maui’s population as explained in the EA Section 3.3.
4. Regarding your comments about the number and funding source for agricultural inspectors. As far as departing passengers and vehicles to the continental United States and international destinations, the inspection is a function for the U.S. Transportation Security Agency and is funded by the United States government. As far as interisland vehicles and passengers, they are inspected, if required, by the HDOA and is funded through State General funds. As stated above, for the maritime operations the shipper’s will reimburse the State for the inspector’s cost to inspect the containers during overtime hours. These agencies have jurisdiction on this matter.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my Planning Staff, in Honolulu at (808) 587-2503.

Very truly yours,

  
RODNEY K. HARAGA  
Director of Transportation





September 7, 2004

Mr. Brian Ishii  
Edward K. Noda and Associates, Inc.  
615 Piikoi Street, Suite 300  
Honolulu, Hawaii 96814

RECEIVED  
SEP 08 2004

E: BI

EKNA SERVICES, INC.

Aloha Mr. Ishii,

I am writing as a concerned member of the community, regarding the proposed changes to Pier 2. I am a member of the Hawaiian Canoe Club and also represent the club on the Board of Directors under the Maui County Hawaiian Canoe Association. I have been a paddler for the past 16 years, the last 8 years as a member of the Hawaiian Canoe Club. I am sure you will be receiving a lot of letters from the paddling community, so I will keep this short.

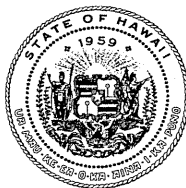
To state that the proposed changes to Pier 2 will have a minimal impact to the canoe clubs is a complete understatement. This proposed change will not only affect the only race course on the North shore of Maui, it will also affect the clubs existence. We have over 100 children in our Kamalii Program, which also extends to our paddling program. Our location at Kahului Harbor makes our programs easily accessible to these children and our community. Have you thought about what will happen to the children if the Kamalii Program is not accessible to them? We teach the children more than paddling skills, we instill workmanship and leadership skills that help our children become respectable citizens of our Island. The extension of Pier 2 not only will affect our race course, it will also affect our practice area. What kind of studies have been conducted to reveal the impact of the canoe club being relocated to another location? In my opinion, this will be removing one of this communities greatest assets to developing our children and helping to reinforce our citizens cultural development.

Has there been any research done on the affect the extension will have on the water flow at the corner of the harbor? Will this extension possibly cause the water in that corner to become stagnant? Will the extension cause erosion of the beach adjacent to Pier 2? Isn't it possible that Maui has outgrown the existing Kahului Harbor? Shouldn't the DOT be looking at extending the harbor outward to accommodate the impending growth of Maui? It would seem that this proposed extension is a "band aid" or "quick fix" to accommodate the Inter-Island Ferry addition. What affect is this going to have on the small boat ramp across the harbor? Will that ramp also be eliminated in the future? It would seem with the proposed extension of Pier 5, though it is on hold at the moment, would also jeopardize the ramps existence in the future.

Please feel free to contact me if any additional information is needed to respond to my questions.

Mahalo,  
Patty Rycroft  
PO Box 5051  
Kahului, Hi 96733  
808-244-1379  
[Patty.rycroft@grandwailea.com](mailto:Patty.rycroft@grandwailea.com)





STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7841.05

November 10, 2005

Ms. Patty Rycroft  
PO Box 5051  
Kahului, Hawaii 96733

Dear Ms. Rycroft:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments on the subject document. We offer the following responses.

1. Regarding your comment on the impacts of Pier 2C on the canoe clubs. The Pier 2C improvements will not be constructed under this Environmental Assessment and has been withdrawn from the proposed project.
2. Regarding your comment to extend the harbor outward to accommodate the impending growth of Maui. The U.S. Army Corps of Engineers performed a study for a new commercial harbor facility on Maui in 1995 titled the "*Maui Second Commercial Harbor, Navigation Study*." The study identified six alternatives and concluded that the new harbor would not have an adequate benefit-to-cost (B/C) ratio to be justified. In addition, the construction of a new harbor will take decades to complete and will have significant environmental impacts. In fact, the study concluded; "*Based on the July 1990 biological opinion, a proposed commercial harbor development in west Maui is likely to result in a jeopardy opinion<sup>1</sup> from NMFS [National Marine Fisheries Service].*" Therefore, a new harbor is not considered a reasonable and feasible alternative and no further analysis will be conducted in this environmental assessment. In addition, the new harbor alternative does not meet the purpose of the project, as:
  - it does not facilitate [in the short-term] maritime shipments of the essential commodities required by Maui County;

---

<sup>1</sup> A jeopardy opinion means that the project will jeopardize the continued existence of an endangered species.

- it does not optimize the utilization of land and water resources committed to marine cargo and passenger operations in an economically responsible manner; and
- it does not minimize the impact on environmental quality and recreational opportunities contiguous with the Harbor.

The computed benefit-to-cost (b/c) analysis results are shown in Table 3-3 and include the impact of a 23-day and 39-day closure of the existing Kahului Commercial Harbor.


**TABLE 3-3**  
**BENEFIT-TO-COST RESULTS FOR SECOND MAUI HARBOR**

| <b>SITE</b>                  | <b>B/C WITH<br/>23-DAY<br/>CLOSURE</b> | <b>B/C WITH<br/>39-DAY<br/>CLOSURE</b> |
|------------------------------|--|--|
| Hata Bay Breakwater Harbor   | 0.08                                   | 0.16                                   |
| Maalaea Pier                 | 0.38                                   | 0.50                                   |
| Ukumehame Pier               | 0.50                                   | 0.71                                   |
| Olowalu Pier                 | 0.50                                   | 0.71                                   |
| Olowalu Dock & Turning Basin | 0.39                                   | 0.56                                   |
| Olowalu Dredged Harbor       | 0.27                                   | 0.38                                   |

3. Regarding your comment about the effect the improvements are going to have on the small boat ramp. As stated in the Section 1.1, the Pier 5 improvements will not be covered in this Environmental Assessment. Also due to unfavorable results from the wave surge analysis, the project is on indefinite hold.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at (808) 587-2503.

Very truly yours,

  
sw RODNEY K. HARAGA  
Director of Transportation

9/4/04

RS  
C:BI

Brian Ishii  
Edward Noda + Associates  
615 Piikoi St. Suite 300  
Honolulu, HI 96814

RECEIVED

SEP 07 2004

EKNA SERVICES, INC.

Brian,

As a member of Hawaiian Canoe Club and a 1 man canoe paddler, I am against the Pier 2C proposals in Kohulei Harbor. Pier 2C effects not just Hawaiian Canoe Club but Na Koa Ewale Canoe Club and all other canoe paddlers on Maui.

If Pier 2C is built, it will limit training areas in the harbor. Pier 2C will block some of the calmest water in the harbor due to it's location in the shadow effect of the East Breakwater (blocking NE trade winds and NE swells). Hawaiian Canoe Club has the top youth program in the state because our training area in the harbor is the only calm water for paddling on the north shore of Maui. Kids feel safe learning to paddle in the area that Pier 2C would eliminate.

Proposed Pier 2C would eliminate 2 to 3 canoe regattas per year in Kohulei Harbor by blocking 3 lanes needed for the races.

Proposed Pier 2C would also interfere with 2 Maliko to Kohulei Harbor 1 and 2 man canoe races (75-100 paddlers) by blocking the established finish line.

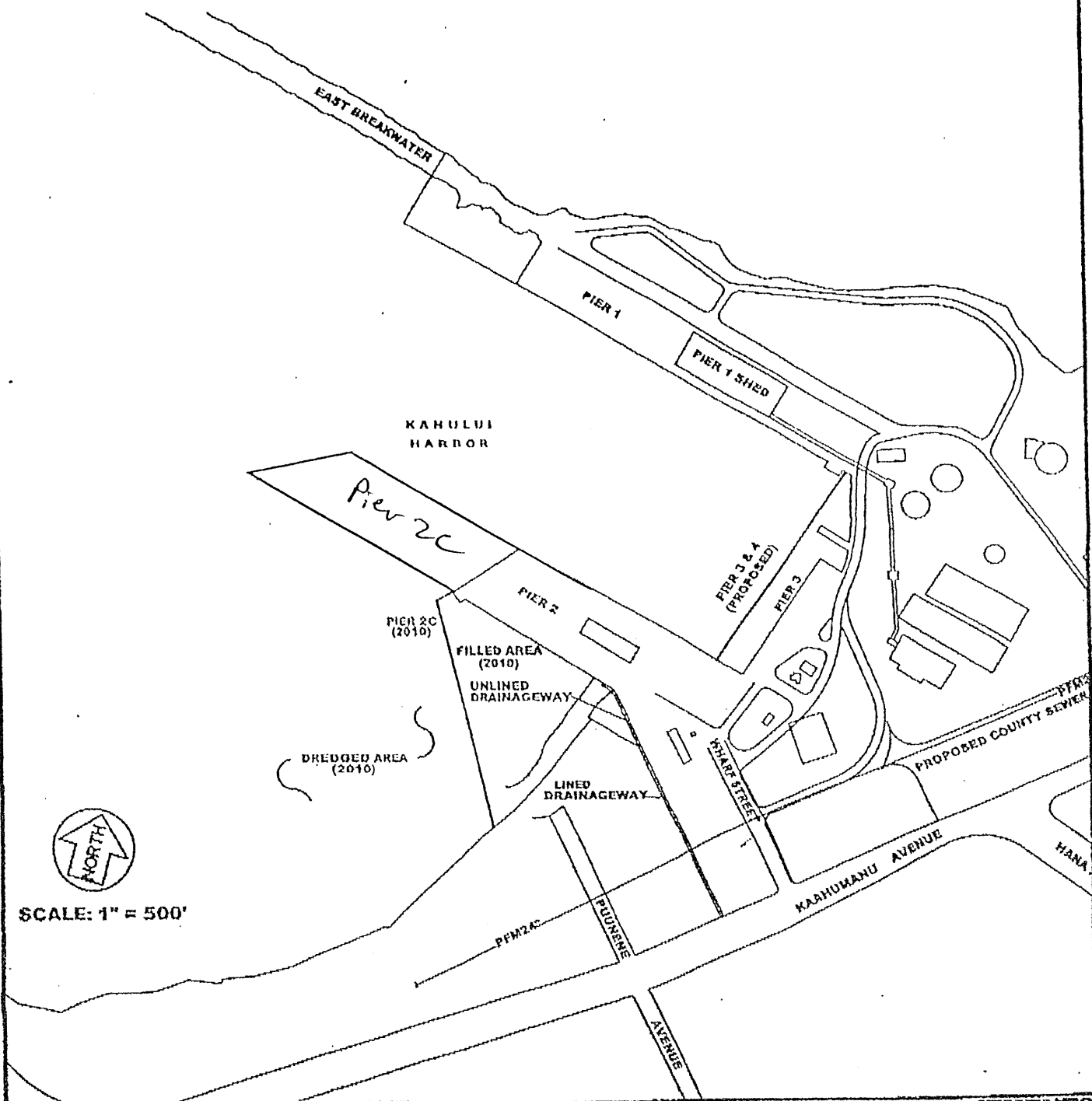
I support the expansion of Kohulei Harbor especially to accommodate the new inter-island ferry. I would favor the extension of Pier 2 to be equal in length with Pier 1. This would limit the impacts on the paddling community in Kohulei Harbor (See Map)

Mahalo,

RH

Roger L. Coarse





**PROPOSED IMPROVEMENTS  
OTHER ALTERNATIVES**

**DRAFT ENVIRONMENTAL ASSESSMENT  
KAHULUI COMMERCIAL HARBOR IMPROVEMENTS**

**FIGURE 7**

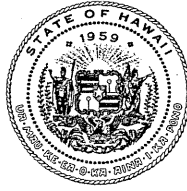
Prepared by : Edward K. Noda and Associates, Inc.

**APRIL, 2004**





LINDA LINGLE  
GOVERNOR



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7842.05

November 14, 2005

Mr. Roger L. Crouse  
251 Hololani Street  
Makawao, HI 96768

Dear Mr. Crouse:

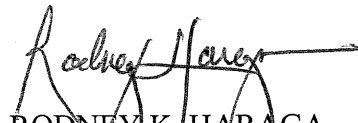
Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments on the subject document. We offer the following responses.

1. Regarding your concern about the impact of the proposed improvements to canoe organizations. The Pier 2C improvements that could have impacted the canoe lanes has been removed from the proposed project and will not be constructed under this Environmental Assessment (EA).
2. Regarding your suggestion to lengthen Pier 2 in a linear fashion. Thank you for your idea, however, this proposed extension would impact the turning basin and make it unusable for the larger vessels using Kahului Harbor. Therefore, this suggestion will not be considered in this EA.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at (808) 587-2503.

Very truly yours,

  
RODNEY K. HARAGA  
Director of Transportation



Rory Frampton  
340 Napoko Place  
Kula, Hawaii 96790

September 7, 2004

RECEIVED  
SEP 09 2004

EKNA SERVICES, INC.

Brian Ishii  
Edward K. Noda & Associates, Inc.  
615 Pi'ikoi Street, Suite 300  
Honolulu, Hawaii 96814

Re: Draft Environmental Assessment – Kahului Commercial Harbor Improvements

I have reviewed the above referenced Draft Environmental Assessment (DEA) and offer the comments below. I am a member of Hawaiian Canoe Club and have been an active paddler (and to a lesser extent surfer) in Kahului Harbor since 1981.

1. The DEA does not adequately describe the extent of uses at Hoaloha Park, especially as it relates to canoe paddling and other accessory uses. For example, the number of boats used on a day to day basis, especially during the regatta season, need to be discussed. High use areas need to be identified. The full range of activities associated with Hawaiian Canoe Club's use of the area need to be thoroughly discussed. The amount of young paddlers who utilize the facility and coastal waters year round is not presented accurately.
2. Surfing sites are not adequately discussed or identified. The document provides no basis for determining that there will be no impacts to surfing sites.
3. Description of uses at Hoaloha park and abutting shoreline and water areas are excluded from the section on surrounding land uses. As such, impacts to surrounding land uses have not been adequately discussed. Other sections in the document also fail to mention canoe paddling activities (e.g. social economic activities).
4. The cultural impact assessment does not follow OEQC guidelines, especially as it relates to interviews with cultural informants. Among the many shortfalls of the cultural assessment is that quotes from informants are provided with no reference to which informant made said statements. There is very poor documentation of the informant interviews and lack of a full discussion of the cultural importance of the paddling activities.
5. The DEA does not discuss impact to water areas available for training purposes. The proposed expansion of Pier 2C combined with the current safety restrictions being enforced by the State Harbors Division will significantly reduce the effective area for

canoe paddling activities. This will curtail or possibly eliminate the ability of the clubs to hold regattas as well as day to day practices.

6. Will Federal funds or approvals be utilized or required for construction of any of the improvements. If so, has a Federal Environmental Assessment been conducted.

7. The document appears to only assess a portion of the improvements contained in the long range master plan. It appears that this assessment may be taking a "piecemeal" approach, in conflict the State's Environmental Laws and Rules.

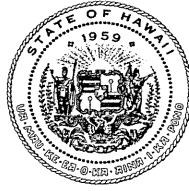
Based on the above shortcomings, there is not an adequate basis upon which to make a Finding of No significant Impact. The document should be amended and republished as a Draft EA for further public input and comment. Absent a republishing of the Draft EA, it would appear as though the proposed undertakings have the potential to have significant impacts, not only to paddling and ocean related recreational opportunities, but also to the overall Maui community, and as an Environmental Impact Statement is warranted.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Rory Frampton", with a stylized flourish extending to the right.

Rory Frampton

Cc: Hawaiian Canoe Club Board of Directors



**STATE OF HAWAII**  
**DEPARTMENT OF TRANSPORTATION**  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7843.05

November 14, 2005

Mr. Rory Frampton  
340 Napoko Place  
Kula, Hawaii 96790

Dear Mr. Frampton:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments in your letter of September 7, 2004. We appreciate your efforts in organizing the workshops after the *Kahului Commercial Harbor 2025 Master Plan Draft Environmental Assessment* was released. We offer the following response.

1. Regarding your concern over the impacts of the uses at Hoaloha Park, particularly as it relates to canoe paddling, and other accessory uses. The Pier 2C improvements will not be constructed under this Environmental Assessment (EA) and has been withdrawn from the proposed project.
2. Regarding your comment that surfing sites are not adequately discussed or identified. The popular surf site is on the western part of the Harbor, and is neither within the project area nor impacted by the proposed project.
3. Regarding your comment that the description of uses at Hoaloha Park and abutting shoreline and water areas are excluded from the section on surrounding land uses. Hoaloha Park sits partially within Kahului Harbor. The use is covered in various sections of the EA, such as, but not limited to: Section 4.9, Historic, Architectural, Archaeological and Cultural Resources; Section 4.21, Recreational Facilities; and Appendix B, Archaeological and Cultural Impact Assessment of Cultural Resources at Kahului Harbor.
4. Regarding your comment that the cultural impact assessment does not follow OEQC guidelines. We respectfully disagree with the commentator's statement regarding the adequacy of the cultural impact assessment. The cultural impacts were properly addressed in the EA Sections 4.9 and 4.21 and Appendix B, and will not be modified.

5. Regarding your concern that the proposed expansion of Pier 2C, combined with the current safety restrictions being enforced by the Harbors Division, will significantly reduce the effective area for canoe paddling activities. The Pier 2C extension that could have impacted the canoe lanes has been removed from the proposed project and will not be constructed under this EA.
6. Regarding your questions of whether Federal funds or approvals will be utilized or required for construction of any of the improvements, and whether a Federal Environmental Assessment has been conducted. There will be no federal funds used. Federal permits will likely be required and the accepting federal authority will determine whether a Federal Environmental Assessment will be required.
7. Regarding your comment that the document appears to only assess a portion of the improvements contained in the long-range master plan and that it appears that this assessment may be taking a "piecemeal" approach, in conflict the State's Environmental Laws and Rules. We respectfully disagree that a "piecemeal" or segmented approach is being taken. As stated in the EA Section 3.4, the intermediate and long-term projects are not reasonably foreseeable and not yet ripe for decision making. The intermediate- and long-term projects are therefore not considered in the EA. The Hawaii Administrative Rules Section 11-200-7, defines the circumstances under which a group of actions proposed by an agency shall be treated as a single action:
  - a. The component actions are independent of each other and do not represent a larger total undertaking;
  - b. The individual projects are not necessarily precedent to the larger project;
  - c. The individual projects are not a commitment to a larger project; and
  - d. The individual actions are not essentially identical.
8. Regarding your comment on the need for an Environmental Impact Statement (EIS). We respectfully disagree with the adequacy of the document. Under the Hawaii Revised Statutes, Chapter 343, an EIS is required if there is a significant impact to the environment by a proposed project. The studies and analyses conducted for the *Kahului Harbor 2025 Master Plan Draft Environmental Assessment* (DEA) indicate that the proposed projects will not create any significant impacts. Therefore, a Finding of No Significant Impact will be determined in the Final Environmental Assessment and no EIS will be required.

Mr. Rory Frampton  
Page 3  
November 14, 2005

HAR-EP 7843.05

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at (808) 587-2503.

Very truly yours,

A handwritten signature in black ink, appearing to read "Rodney K. Haraga", with a long horizontal flourish extending to the right.

RODNEY K. HARAGA  
Director of Transportation





SALLY RAISBECK  
427 Liholiho Street, Wailuku, HI 96793 808-244-9604 sally @maui.net

September 1, 2004

Edward K. Noda and Associates, Inc.  
615 Pi'ikoi Street, Suite 300  
Honolulu, Hawaii 96814

Gentlemen:

Please list me as a consulted party for the EA about the Kahului Harbor Improvements.

I am concerned about the potential for importing alien species into Maui as the number of cruise ships increases and as the interisland car/passenger ferry comes into use. The Harbor Plan lists the number of cruise ship visits annually as 287 in 2025.

Any expansion of the harbor facilities MUST take into consideration the need for sufficient safeguards, and the proper funding of inspections, to prevent the catastrophic economic loss that results when diseases and pests are allowed to enter the island.

The free interisland movement of cars is probably desired by almost everyone, but it has been shown that mud on car undercarriages can easily import miconia seeds and coqui frog eggs. Coqui frogs are another dire example of pest importation from other islands.

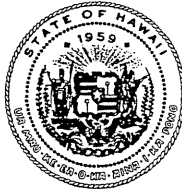
Sincerely yours,

Sally Raisbeck

xc: Sen. Shan Tsutsui  
Sen. Rosalyn Baker  
Sen. Kalani English  
Rep. Bob Nakasone  
Rep. Joe Souki  
Rep. Sol Kaho'ohalahala  
Rep. Chris Halford  
Rep. Kika Bukowski  
Rep. Brian Blundell  
Lynne Woods, Chamber of Commerce  
Terry Vencl, Maui Visitors Bureau



LINDA LINGLE  
GOVERNOR



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
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RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP  
7844.06

November 10, 2005

Ms. Sally Raisbeck  
427 Liholiho Street  
Wailuku, Hawaii 96793

Dear Ms. Raisbeck:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – Job H.C. 3334

Thank you for your comments on the subject document dated September 8, 2004. We offer the following responses.

1. Regarding your request to be listed as a consulting party. If an Environmental Impact Statement (EIS) is prepared in the future, you will be listed as a consulting party. At this point in time, a Finding of No Significant Impact will be determined in the Final Environmental Assessment and no EIS will be prepared.
2. Regarding your comment on the alien species issue. The measures for the control of alien species introduction are discussed in the Environmental Assessment (EA) Section 4.10.1.4. As stated in the EA, the Hawaii Department of Agriculture (HDOA), Hawaii Department of Health (HDOH) and other agencies have the responsibility for and jurisdiction over the prevention and mitigation of the introduction of alien species. In addition, the Hawaii Department of Land and Natural Resources (HDLNR), Division of Aquatic Resources (DAR) has jurisdiction over aquatic alien species and will be stated in the Final EA.

In addition, the following information will also be added to the Final EA.

Alien species can be introduced purposefully or incidentally, such as by hitchhiking on cargo or as stowaways in the containers. Therefore, many of the alien pest species hitchhike on commodities imported by businesses and residents of Maui County. This is shown in the results from the Kahului Airport Risk Assessment, which indicates that the passengers are typically a low risk pathway for the importation of alien species. The high-risk commodities for the

importation of alien pest species include plants and propagative plant parts. Other high-risk commodities include organic produce, leafy greens (such as lettuce, cabbage and kale), cut flowers, strawberries, and peppers. Other high-risk commodities, which enter through the Harbor, include Christmas trees and other plant material.

Once an alien species is established on one island it is highly likely to spread to other islands, especially seeds and flying insects. The inter-island dispersal pathways include, but are not limited to, seeds carried by birds, migration of birds, dispersal by wind and dispersal by ocean currents.

The HDOA has designated Kahului as a limited port-of-entry for overseas agricultural commodities; therefore only plants and plant products such as produce and cut flowers are allowed entry. Live animals (except live seafood for consumption) and microorganisms from foreign and domestic origins are not allowed entry through Kahului unless inspected by HDOA in Honolulu prior to the transport to Kahului.

Therefore, pursuant to the HRS, Section 150A-5 any person transporting any agricultural commodity to Hawaii shall notify the HDOA and hold the commodity on the dock, pier, wharf, airport, air terminal where they are first received or discharged until inspection can be made by the Plant Quarantine Inspector. However, because there has always been a shortage of space at the piers, transportation companies have been requesting more inspections to be done at sites other than the dock or at the dock but before or after regular work time to allow for the containers to be moved from the docks. For the maritime operations, the shippers will reimburse the State for the inspector's cost to inspect the containers during overtime hours.

Although HDOA manpower is limited at other ports, the addition of DOT funded agricultural inspectors at Kahului Airport allows the non-Airport inspectors to work more hours at the Harbor to perform the necessary inspections. In addition, there are more inspectors to work overtime hours to inspect the incoming maritime commodities, if necessary.


Similarly, propagative agricultural commodities cannot move between islands without HDOA inspection. If this cargo is not inspected by HDOA, Young Brothers will not allow the cargo to be boarded onto the vessel. Non-propagative plant parts, such as cut flowers, fruits, vegetables and produce, need not be inspected provided that they are subject to random inspection by HDOA.

Similarly, Hawaii Superferry is currently working on the HDOA requirements for their operations with HDOA and has included the following measures in their Tariff No. 1.

- *“Domestic cats and dogs **ONLY** may travel on Carrier’s [“Superferry”] vessels. No other animals are permitted except livestock and poultry from Hawaii Department of Agriculture (HDOA) licensed agricultural producers. Carrier does not permit the carriage of reptiles, snakes, birds (except HDOA registered poultry transported by registered growers), rodents or exotic species of animals of any kind.*
- *Only plants, flowers and crops that have either been inspected and passed at the HDOA Plant Quarantine Office or via the Nursery Self Certification Program may be transported on Carrier’s [“Superferry”] vessel. In all cases, a “Passed” sticker must be shown before plants will be allowed on the ferry. No other plants will be permitted on the ferry and must be left for destruction by Carrier’s [“Superferry”] personnel.*

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my Planning Staff, in Honolulu at (808) 587-2503.

Very truly yours,

  
RODNEY K. HARAGA  
Director of Transportation



RECEIVED

SEP 09 2004

RS  
C:BI

To Whom It May Concern,

EKNA SERVICES, INC.

This is in response to the information gathered regarding the expansion of Kahului Harbor. I feel that this expansion demands that an Environmental Impact Study be completed prior to the State allowing the powers that be to further dredge the harbor, install another pier, etc.

I am a leading paddler, steersman with Hawaiian Canoe Club on Maui. I commute from O'ahu to paddle with Hawaiian as I love the camaraderie, family feeling and huge childrens' program and everything it stands for.

The Club has been a role model for clubs across the State to bring back paddling to the people of Hawaii. How can the State begin to think about having the harbor waters closed off to paddling with security measures, etc. if the new pier is built as planned.

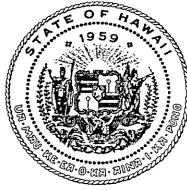
IT is wrong. It has a much larger impact than your brief synopsis believes. Please review your facts and realize how many people this will negatively affect.

Thank you for your time and I look forward to hearing back from you and possibly working with you on how to responsibly expand the Kahului Harbor.

Aloha,



Stewart Kawakami  
Aloha Airlines Pilot  
Hawaiian Canoe Club Paddler  
MIL Paddling Coach  
8 Meha Place, Paia, HI, 96779



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP 7845.05

November 14, 2005

Mr. Stewart Kawakami  
8 Meha Place  
Paia, Hawaii 96779

Dear Mr. Kawakami:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments on the subject document. We offer the following responses.

1. Regarding your comment on the need for an Environmental Impact Statement (EIS). Under the Hawaii Revised Statutes Chapter 343, an EIS is required if there is a significant impact to the environment by a proposed project. The studies and analyses conducted for the *Kahului Commercial Harbor 2025 Master Plan Environmental Assessment* indicate that the proposed projects will not create any significant impacts. Therefore, a Finding of No Significant Impact will be determined in the Final Environmental Assessment and no EIS will be required.
2. Regarding your concern about impacts related to the construction of Pier 2C. The Pier 2C improvements will not be constructed under this Environmental Assessment and has been withdrawn from the proposed project.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at (808) 587-2503.

Very truly yours,

A handwritten signature in black ink, appearing to read "Rodney K. Haraga", is written over a horizontal line.

RODNEY K. HARAGA  
Director of Transportation



To: Brian Ishii  
Noda and Associates  
615 Piikoi st. Suite 300  
Honolulu, HI, 96814

RECEIVED

SEP 08 2004

Sept. 03, 2004

EKNA SERVICES, INC.

From Walter B Quisenberry  
1499 W. Kuiaha Rd.  
Haiku, HI. 96708

Dear Sir:

I am opposed to the proposed expansion of Kahului Harbor facilities as shown in the EA dated April 2004. My opposition is on the basis of common sense as well as cultural, environmental and recreational concerns. I am a lifelong resident of Hawaii, born in Honolulu, a surfer, canoe paddler and fisherman. My family has used Kahului Harbor for the last 30 years for those pursuits.

First, why expand? I have observed the harbor closely for the last 6 years and have noticed that much of the time there are very few and often no ships in the harbor. The current expansion along the East side would appear adequate for freight and tourist vessels to both berth at the same time. Perhaps more careful scheduling of arrivals would alleviate need to expand altogether.

Second, Kahului Harbor is a cultural center of the island of Maui. So much so that, if you look between the canoe clubs a pohaku embodiment of Kanaloa protects the harbor for all users. The harbor is used by many for subsistence fishing, surfing, canoe paddling and limu gathering. The harbor is flanked by Hoaloha Park, one restaurant, two hotels, housing, and the Maui Cultural Center. The Canoe Clubs provide youth programs with mentoring for at-risk youth, in Hawaiian culture and language, as well as canoe paddling and the associated cultural aspects. The paddling situation is the best on the Island; there is no acceptable alternative site. The expansion as shown would impact all of this.

Third, environmental concerns are many.

A. Kahului Harbor is very close to Kanaha Pond Refuge and its endangered bird population. Can you prove there will be no impact on this?

B. Kahului Harbor is currently home for the protected green sea turtles; also several types of dolphins frequent the harbor. Can you prove there will be no impact on them?

C. Water quality has been improved in the harbor in the last years and it is good now. With the restrictions shown in the plan, I believe circulation will be compromised and the harbor will stagnate. Can you prove this will not happen?

D. The proposed ferry will bring lots of people, vehicles and alien species. The brown tree snake for example is a tremendous concern, hopefully not established yet, but as the pace of life increases, this would be a perfect way of spreading this pest from one island to another. Alien plants and insects, agricultural pests and diseases would have an easy ride in the dirt on a truck's tires. What screening will take place? What is planned to keep this from happening? We are currently overwhelmed with new plant, insect and diseases that affect our everyday lives.

What absolute proof can you give that this won't be an avenue to spread these problems from island to island?

Fourth, recreational concerns. The plan as shown would impact canoe paddling, surfing and fishing as well as open space restrictions.

The expansion of Pier 2 would:

1. Severely restrict canoe paddling which takes place every day of the year. It would impact racing space as well as practice space. The clubs have recently had a large section taken away as practice area (everything on the east side of a line between the existing pier two and the green buoy at the harbor mouth). This was a prime area to use on windy days.

2. Impact water quality on the mauka (sw) side of Pier 2 due to restricting circulation.

3. Create a backwash situation by reflecting waves toward the breakwall and small boat channel causing:

- A. a negative impact on surfing and fishing.

- B. safety concerns for the small boat users coming and going from the current boat ramp.

- C. elimination of a surf break fronting the canoe clubs.

Can you show that this will not happen?

Fishing in the harbor would under this plan be at least more limited. This is the place the young and the old can fish, in safety and for many close to home. Look at the fishers there, mostly old people in calm water, looking for dinner. I am afraid this plan will take that away.

I am also against "breakwater improvements". If they were successful in reducing turbulence, the other result would be:

- A. a reduction of wave driven circulation in the harbor itself.

- B. stagnation of the harbor would be inevitable and cause unhealthy conditions, severely impact sealife, and possibly ruin recreational use altogether.

- C. environmental degradation.

A breakwater deflects the energy of the waves; in contrast, a surf break uses up the energy of the waves leaving calm water inside. I respectfully request the creation of a surfbreak if waves are a problem. Several surfbreaks all over the islands have been created in the past "by accident" four of which are in Kahului harbor, and all would be at least impacted in a negative way; one would be eliminated.

If construction goes on as planned,

- A. What will replace all of the current resources?

- B. Where will the canoe clubs go, does the plan have provisions to relocate the clubs in an equally good place? Where is it?

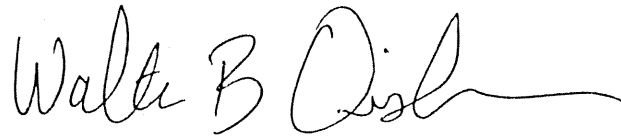
- C. What will happen to the fishers that rely on the harbor for food?

I hereby request an environmental impact statement for this project and would like to be listed on your official list to be contacted as this project is discussed.

The changes to Kahului Harbor have the potential to negatively impact many aspects of life in Central Maui, and many questions need to be answered before this project proceeds. I hope that serious efforts are made to address them. We Maui residents do not want to have to live with these irreversible negative consequences.

Respectfully submitted,

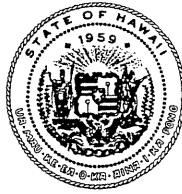
Walter (Terry) B. Quisenberry

A handwritten signature in black ink, reading "Walter B Quisenberry". The signature is fluid and cursive, with a long horizontal line extending from the end of the name.

C.S. - D.E.Q.C., SunFrida Foundation, Hawaiian Cancer Club.



LINDA LINGLE  
GOVERNOR



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

HAR-EP  
7846.06

November 10, 2005

Mr. Walter B. Quisenberry  
1499 West Kuiaha Road  
Haiku, Hawaii 96708

Dear Mr. Quisenberry:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – Job H. C. 3334

Thank you for your comments on the subject document. We offer the following responses.

1. Regarding your comment about the need for harbor expansion. The purpose of the project is discussed in the *Kahului Commercial Harbor 2025 Master Plan Environmental Assessment* (EA) Section 3.2. Essentially, the master plan recommended improvements are being proposed to meet the existing and forecasted maritime demand expected by 2025 at Kahului Harbor.
2. Regarding your comments about environmental concerns including the proximity of Kanaha Pond with its endangered bird population, green sea turtles, and water quality. These issues are addressed in Section 4 of the EA and the analysis found that there will be no significant impact to the environment
3. Regarding your comment on the alien species issue. The alien species issue is discussed in the EA Section 4.10.1.4. As stated in the EA, the Hawaii Department of Agriculture (HDOA), Hawaii Department of Health (HDOH) and other agencies have the responsibility for and jurisdiction over the prevention and mitigation of the introduction of alien species. In addition, the Hawaii Department of Land and Natural Resources (HDLNR), Division of Aquatic Resources (DAR) has jurisdiction over aquatic alien species. DAR's role will be added to the Final EA.

In addition, the following information will also be added to the Final Environmental Assessment.

Alien species can be introduced purposefully or incidentally, such as by hitchhiking on cargo or as stowaways in the containers. Therefore, many of the alien pest species hitchhike on commodities imported by businesses and residents of Maui County. This is shown in the results from the Kahului Airport Risk Assessment, which indicates that the passengers are typically a low risk pathway for the importation of alien species. The high-risk commodities for the importation of alien pest species include plants and propagative plant parts. Other high-risk commodities include organic produce, leafy greens (such as lettuce, cabbage and kale), cut flowers, strawberries, and peppers. Other high-risk commodities, which enter through the Harbor, include Christmas trees and other plant material.

Once an alien species is established on one island it is highly likely to spread to other islands, especially seeds and flying insects. The inter-island dispersal pathways include, but are not limited to, seeds carried by birds, migration of birds, dispersal by wind and dispersal by ocean currents.

The HDOA has designated Kahului as a limited port-of-entry for overseas agricultural commodities, therefore only plants and plant products such as produce and cut flowers are allowed entry. Live animals (except live seafood for consumption) and microorganisms from foreign and domestic origins are not allowed entry through Kahului unless inspected by HDOA in Honolulu prior to the transport to Kahului.

Therefore, pursuant to the HRS, Section 150A-5 any person transporting any agricultural commodity to Hawaii shall notify the HDOA and hold the commodity on the dock, pier, wharf, airport, air terminal where they are first received or discharged until inspection can be made by the Plant Quarantine Inspector. However, because there has always been a shortage of space at the piers, transportation companies have been requesting more inspections to be done at sites other than the dock or at the dock but before or after regular work time to allow for the containers to be moved from the docks. For the maritime operations, the shippers will reimburse the State for the inspector's cost to inspect the containers during overtime hours.

Although HDOA manpower is limited at other ports, the addition of DOT funded agricultural inspectors at Kahului Airport allows the non-Airport inspectors to work more hours at the Harbor to perform the necessary inspections. In addition, there are more inspectors to work overtime hours to inspect the incoming maritime commodities, if necessary.

Similarly, propagative agricultural commodities cannot move between islands without HDOA inspection. If this cargo is not inspected by HDOA, Young Brothers will not allow the cargo to be boarded onto the vessel. Non-propagative plant parts, such as cut flowers, fruits, vegetables and produce, need not be inspected provided that they are subject to random inspection by HDOA. Similarly, Hawaii Superferry is currently working on the HDOA requirements for their operations with HDOA and has included the following measures in their Tariff No. 1.

- *“Domestic cats and dogs **ONLY** may travel on Carrier’s [“Superferry”] vessels. No other animals are permitted except livestock and poultry from Hawaii Department of Agriculture (HDOA) licensed agricultural producers. Carrier does not permit the carriage of reptiles, snakes, birds (except HDOA registered poultry transported by registered growers), rodents or exotic species of animals of any kind.*
  - *Only plants, flowers and crops that have either been inspected and passed at the HDOA Plant Quarantine Office or via the Nursery Self Certification Program may be transported on Carrier’s [“Superferry”] vessel. In all cases, a “Passed” sticker must be shown before plants will be allowed on the ferry. No other plants will be permitted on the ferry and must be left for destruction by Carrier’s [“Superferry”] personnel.*
4. Regarding your concern about impacts related to the construction of Pier 2C. The Pier 2C improvements will not be constructed under this EA and has been withdrawn from the proposed project.
  5. Regarding your comment about possible breakwater improvements. The breakwater improvements are not part of the proposed project and may not be constructed, as stated in the EA Section 1.1, as these improvements are not reasonably foreseeable and not ripe for decision-making.
  6. Regarding your request to perform an Environmental Impact Statement (EIS) and to be listed on the contact list. Under the Hawaii Revised Statutes, Chapter 343, an EIS is required if there is a significant impact to the environment by a proposed project. The studies and analyses conducted for the EA indicate that the proposed projects will not create any significant impacts. Therefore, a Finding of No Significant Impact will be determined in the Final EA and no EIS will be required. There is no requirement under the Hawaii environmental laws for a public hearing for an environmental assessment. You will be listed as a commentator in the EA.

Mr. Walter B. Quisenberry  
Page 4  
November 10, 2005

HAR-EP  
7846.06

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my Planning Staff, in Honolulu at (808) 587-2503.

Very truly yours,



RODNEY K. HARAGA  
Director of Transportation



C.B.T.R.

RECEIVED  
SEP 08 2004

9/7/2004

Brian Ishii  
Noda & Associates  
615 Piikoi Street, Suite 300  
Honolulu, HI 96814

EKNA SERVICES, INC.

Dear Mr. Ishii,

**Re: Draft EA for Kahului Harbor Expansion**

Thank you for the opportunity to comment on this EA. I am a paddler with Hawaiian Canoe Club on Maui, based in Kahului harbor. I am also a coastal geologist specializing in beach erosion and sand transport.

It is difficult to convey to persons who do not paddle outrigger canoes, the extent to which this sport is relied upon by paddlers for physical well being, emotional well being, and to carry on Hawaiian cultural traditions. For paddlers, the sport often becomes the center of our lives – that which keeps us healthy, grounded, humble, and keeps alive in us the spirit of Ohana. The canoe hale is a place where people seek friendship, where we look after one another's keiki while we take turns on the water, and where new resolutions for a healthier lifestyle are made. It is a place where children are raised to be respectful of people and the environment, and healthy in body and mind.

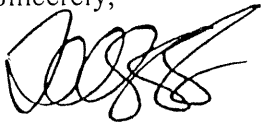
On the whole length of Maui's North Shore, there is only one place that is safe to paddle all year round, and that is Kahului Harbor. The North Shore is churned up in the winter months by north swells, and in the summer months by trade wind swells. Within the harbor, we have an area large enough to train. As the races we train for are up to 42 miles long, we can't accomplish training for our races in a small, restricted area. Several months ago, we were told by the harbormaster that new regulations meant that we could no longer paddle in the eastern section of the harbor where the barges go. This was a serious blow to our training area, as this particular section is the only flat-water section in the entire harbor. It has almost cut our training area in half, and forced us to go outside the harbor into rougher, more dangerous water, often until well past the sun goes down. We will feel the impact of this restriction most strongly in the upcoming winter, when breaking surf cuts off another significant portion of the harbor for training, leaving us with only a narrow strip from the beach to the harbor mouth in which to train – providing that there are no barges or cruise ships coming in and out of the harbor.

We are greatly concerned about the effects of the proposed pier expansion on our training area, as well as effects on the adjacent beach, and impacts to regattas. One of the reasons Hawaiian Canoe Club has been State Champions for the last 4 years is that we have one of the best and safest places in the state to train. Kahului Harbor and Hawaiian Canoe Club is where Lauren Spalding, 2004 Olympic Kayaker, learned to paddle and trained to become one of the world's best. Hawaiian Canoe Club is also a heavily used youth center for local kids from Harbor Lights and other Maui communities, to hang out, get on the water, use the weight room, talk to Kupuna,

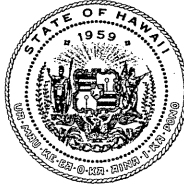
learn about their culture, do their homework, and stay out of trouble. We need a safe place to learn about the ocean and develop our ocean skills, and we can't accomplish this if we are crammed into a high-traffic, restricted little area in which to maneuver our 45-foot canoes.

We are asking for an in-depth EIS to be conducted to look more closely at potential impacts to not only recreational and cultural practices that currently take place in Kahului Harbor, but also to air quality, water quality, traffic, and sediment transport issues that we feel were not addressed in enough depth in the EA, that will be impacted by the expansion of Kahului harbor to accommodate the ferry. We would also like to have a public hearing on this matter as it will greatly affect us and our children, as daily users of the harbor for recreational and cultural purposes. Please give our comments due consideration. This was a place where people came to use the ocean long before the first barges arrived. Thank you for the opportunity to provide you with our comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'Zoe Norcross-Nu'u', with a stylized, flowing script.

Zoe Norcross-Nu'u  
1500B Kokomo Road  
Haiku, HI 96708  
(808) 984-3335  
norcross@hawaii.edu



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:

HAR-EP 7847.05

November 14, 2005

Ms. Zoe Norcross-Nu'u  
1500B Kokomo Road  
Haiku, Hawaii 96708

Dear Ms. Norcross-Nu'u:

Subject: Response to Comments, Kahului Commercial Harbor 2025 Master Plan  
Environmental Assessment – H.C. 3334

Thank you for your comments on the subject document. We offer the following responses.

Regarding your concern about impacts related to the construction of Pier 2C. The Pier 2C improvements will not be constructed under this Environmental Assessment (EA) and has been withdrawn from the proposed project.

Regarding your comments about the need for an Environmental Impact Statement (EIS) and a public hearing. Under the Hawaii Revised Statutes, Chapter 343, an EIS is required if there is a significant impact to the environment by a proposed project. The studies and analyses conducted for the EA indicate that the proposed projects will not create any significant impacts. Therefore, a Finding of No Significant Impact will be determined in the Final EA and no EIS will be required. There is no requirement under the Hawaii environmental laws for a public hearing for an environmental assessment.

The recreational and cultural impacts are discussed in the EA Sections 4.21 and 4.9, respectively. Likewise the impacts for air quality, water quality, traffic and coastal processes are addressed in the EA Sections 4.3, 4.8, 4.22 and 4.7, respectively. A ferry is anticipated to utilize Kahului Harbor and its operations will be accommodated with or without the proposed improvements.

We appreciate your interest in the environmental review process. If you have any questions, please contact Mr. Glenn Soma of my planning staff at (808) 587-2503.

Very truly yours,

A handwritten signature in black ink, appearing to read "Rodney Haraga", with a long horizontal stroke extending to the right.

RODNEY K. HARAGA  
Director of Transportation



## **APPENDIX F**

# **EXEMPTIONS AND HAWAII SUPERFERRY'S WHALE AVOIDANCE POLICY**



HAR-ED  
9145.06

July 13, 2005

TO: GENEVIEVE SALMONSON, DIRECTOR  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL  
DEPARTMENT OF HEALTH

FROM: BARRY FUKUNAGA  
DEPUTY DIRECTOR OF HARBORS

SUBJECT: PIER 1 COMFORT STATION, WATERLINE AND SEWERLINE  
IMPROVEMENTS, KAHULUI HARBOR, MAUI – JOB H. C. 30000

We have considered the potential effects of the subject project as provided by Chapter 343, Hawaii Revised Statutes, and Chapter 11-200, Hawaii Administrative Rules, and have determined that the subject project will have minimal or no significant effect on the environment and is therefore exempt from the preparation of an environmental assessment. This determination is based on the following Exemption Classes as listed on the Comprehensive Exemption List for the State of Hawaii Department of Transportation Amended November 15, 2000.

Exemption Class: Exemption Class 2: Replacement or reconstruction of existing structures and facilities where the new structure will be located, generally on the same site, and will have substantially the same purpose, capacity, density, height and dimensions as the structure replaced.

A. Structures

5. Replacement or repair of existing deteriorated and/or damaged structures to their original/better condition within areas under the jurisdiction of the Department of Transportation such as piers, mooring buoys, single story office buildings, warehouses, sheds, comfort station, and shelters.

B. Facilities

2. Upgrade or replace utility and drainage systems to maintain a consistent level of service. Drainage improvements will generally consist of installation of pipe culverts, construction of gutters where minor flooding occurs.

The proposed project includes the replacement of two existing comfort station structures that service the Pier 1 area of Kahului Harbor by constructing a new structure in the same general vicinity. The replacement comfort station will serve the same purpose and maintain the same capacity of the two comfort stations it replaces. Passenger cruise vessels and containerized cargo operations are the primary uses at the Pier 1 area of Kahului Harbor.

Also included in this project is the construction of a new sewerline and sewer pump station to enable the closure of two cesspools, one of which is a large capacity cesspool, that presently serve as disposal points for all wastewater generated in the Pier 1 area. The U.S. Environmental Protection Agency (EPA) Class V Rule promulgated on December 7, 1999 (and found at 40 CFR Part 144) mandates the closure of the large capacity cesspool. EPA has granted the Department of Transportation an extension beyond the original closure deadline of April 5, 2005. The new sewerline will connect to the County of Maui's (County) wastewater collection system and enable appropriate treatment at the County's wastewater treatment plant. En route to the connection point with the County wastewater system, a new service lateral will be installed to collect the wastewater generated at the Harbors Division Maui District Office. Wastewater generated at the District Office is presently disposed into a seepage pit after partial treatment in a package treatment unit. The package treatment unit will be demolished and the seepage pit abandoned under this project. An upgraded waterline to service Pier 1 was also a part of this project's scope; however, it was eliminated in order to reduce the cost within the budgeted construction funds.

Except for minor and short-term impacts from construction activities, there will be no air quality impacts. Noise impacts generated during construction will be minimal and of short duration. Since the work will be done on land, there will be no water quality impacts. Construction will be performed in compliance with Federal, State and County environmental protection regulations. All minor and short-term impacts are compatible with existing and planned uses of the area. The Department of Transportation will instruct the contractor to adhere to the proposed efforts to mitigate any temporary adverse effects during construction.

Should you have any questions, please contact Marshall H. Ando of the Harbors Division Engineering Design Section at 587-1961.



LINDA LINGLE  
GOVERNOR



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HARBORS DIVISION  
79 S. NIMITZ HIGHWAY  
HONOLULU, HAWAII 96813-4898

RODNEY K. HARAGA  
DIRECTOR

Deputy Directors  
BRUCE Y. MATSUI  
BARRY FUKUNAGA  
BRENNON T. MORIOKA  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:  
DEP-H 8573.05

February 23, 2005

TO: GENEVIEVE SALMONSON, DIRECTOR  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL  
DEPARTMENT OF HEALTH

FROM: BARRY FUKUNAGA  
DEPUTY DIRECTOR OF HARBORS  
DEPARTMENT OF TRANSPORTATION

SUBJECT: ENVIRONMENTAL REVIEW EXEMPTION DETERMINATION,  
KAHULUI HARBOR

The State Department of Transportation, Harbors Division has reviewed the requirements and needs associated with harbor access and use of pier facilities by Hawaii Superferry Inc., at Kahului Harbor on the Island of Maui.

Following discussions with Hawaii Superferry and consultation with State and County agencies regarding the intended use of the harbor facility and in consideration of the provisions of Chapter 343, Hawaii Revised Statutes, and Chapter 11-200, Hawaii Administrative Rules, we have determined that the operation of Hawaii Superferry at Kahului Harbor conforms with the intended use and purpose of the harbor and meets conditions that permit exemption from environmental review at such location based on the method of operation planned. The ferry activity at Kahului Harbor will use equipment appropriate for a harbor, include only minor facilities improvements and will be conducted at an existing pier facility that is consistent with the purpose and reason for which it was originally developed.

The approach that will be undertaken involves the utilization of a barge (floating platform) that will be moored at pier 2 to provide a transition platform between the Hawaii Superferry vessel and the pier. The barge will be configured with a boarding ramp to provide a connection between the vessel and the barge; and a separate ramp between the barge and pier for safe vehicle loading and off-loading. The barge will be anchored alongside the pier and secured in position by mooring lines and the ferry vessel will be positioned to berth next to the barge. The enclosed exhibit depicts the intended arrangement.

Operational support to accommodate Hawaii Superferry will also include the addition of minor improvements on or adjacent to the pier in the form of utility service (water, power and lighting);

GENEVIEVE SALMONSON, DIRECTOR

February 23, 2005

Page Two

security fencing, pavement striping, the placement of boarding gangway ramps; and the installation of tents at inspection points or customer waiting areas. These minor improvements are limited in scale and scope, represent the type of changes introduced from time-to-time at various harbor areas to accommodate operational activities in the designed use of piers, storage yards and service areas for all classes of vessels and types of harbor uses.

The installation and result of the minor improvements noted will not produce or create any adverse air quality, noise or water quality impact. All changes, modifications, additions or adjustments remain compatible with the uses established for the harbor and its piers, fall within maritime activities that were identified in environmental reviews conducted in conjunction with the original development of the facilities and conform to the purpose for which the harbor was built.

We find that the commencement of service by the Hawaii Superferry in the manner described falls under permitted Exemption Classes as listed on the Comprehensive Exemption List for the State of Hawaii Department of Transportation amended November 15, 2000. The applicable exemption classes are as follows:

Exemption Class 3: Construction and location of single, new, small facilities or structures and the alteration and modification of same and installation of new, small, equipment and facilities and the alteration and modification of the same including but not limited to:

Item 3: Installation of security and safety equipment

Exemption Class 6: Construction or placement of minor structures accessory to existing facilities.

Item 8: Alteration or addition of improvements with associated utilities, which are incidental to existing harbor and boat ramp operations, in accordance with master plans that have met the requirements of Chapter 343, Hawaii Revised Statutes. Such improvements and associated utilities include concessions, comfort stations, pavilions, paving, rock walls, fencings, walkways, loading docks, warehouses, piers, offices, container freight stations, cranes, fuel lines, lighting, sprinkler and drainage system.

Please let me know if there are any questions or if additional information is needed to further clarify any of the improvements or items described herein.

Enclosure

c: Bruce Matsui  
Glenn Okimoto  
Jean Oshita  
Julia Tsumoto

DRAFT May 12, 2005



*Hawaii Superferry, Inc.*

## **Whale Avoidance Policy & Procedures**

**May 2005**

### **Table of Contents**

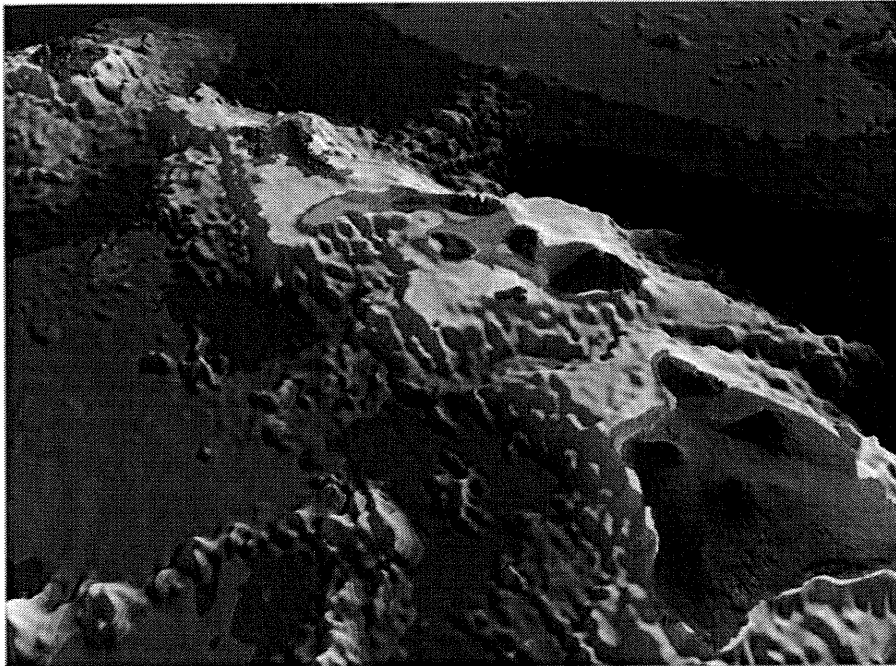
1. Background
2. Vessel design & features
3. Routing & operations
4. Watch staffing and observation equipment
5. Night Operations
6. Whale avoidance maneuvering procedures
7. Log keeping & whale encounter procedures



## 1. Background

Congress, in consultation with the State of Hawaii, designated the Hawaiian Islands Humpback Whale National Marine Sanctuary on November 4, 1992. The Hawaiian Islands National Marine Sanctuary Act identified the following purposes for the sanctuary: to protect humpback whales and their habitat within the sanctuary; to educate and interpret for the public the relationship of humpback whales and the Hawaiian Islands marine environment; to manage human uses of the sanctuary consistent with the Hawaiian Islands National Marine Sanctuary Act and the National Marine Sanctuary Act; and to provide for the identification of marine resources and ecosystems of national significance for possible inclusion in the sanctuary.

Sanctuary waters (pink areas below) are largely defined by shallow areas favored by the Northern Pacific Humpback whales during their breeding and calving season in Hawaii.



**Fig. 1: Hawaiian Islands Humpback Whale National Marine Sanctuary**

Seasonally migrating northern pacific humpback whales swell Hawaii's cetacean population by over 5,000 animals and compose the vast majority of Hawaii's cetacean population during the winter season when the whales are breeding & calving in Hawaii's warm waters. (Dr. Joe Mobley, Distribution & Abundance of Humpback Whales).

DRAFT May 12, 2005

Approximately 90% of humpbacks in Hawaii inhabit shallow waters less than 100 fathoms (600 feet, 183 meters) conducive to breeding and calving behaviors. See Fig 2. (Mobley, ibid)

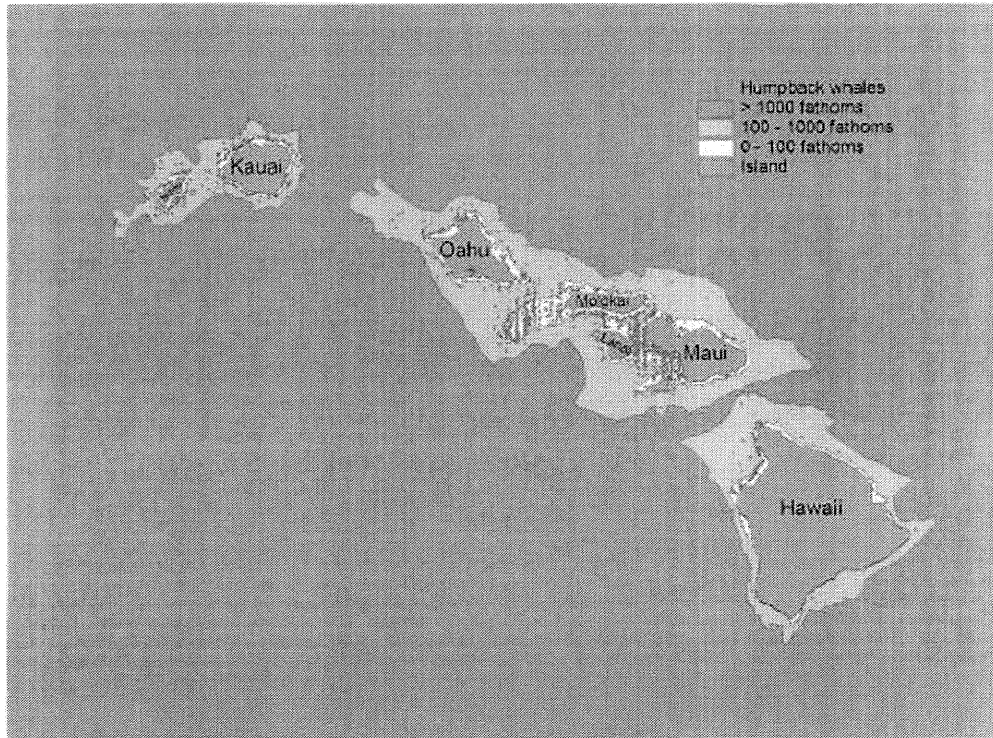


Fig 2. Hawaii's humpback whale distribution from aerial surveys 1993-98  
Source: Dr. Joe Mobley, University of Hawaii.

The following procedures are to be followed during the months of peak whale population in the Hawaiian Islands, generally, from January through April inclusive.

## **2. Vessel design & features**

Certain features of Hawaii Superferry vessels help reduce impact to whale habitats and can specifically reduce the chance of striking a whale.

- A. Vessels do not discharge any wastewater in Hawaiian waters.

DRAFT May 12, 2005

B. Vessels project a small below-the-waterline cross-section (e.g. shallow draft, slender hulls) to reduce the “swept area” which may strike a whale and therefore reduce the chance of strikes.

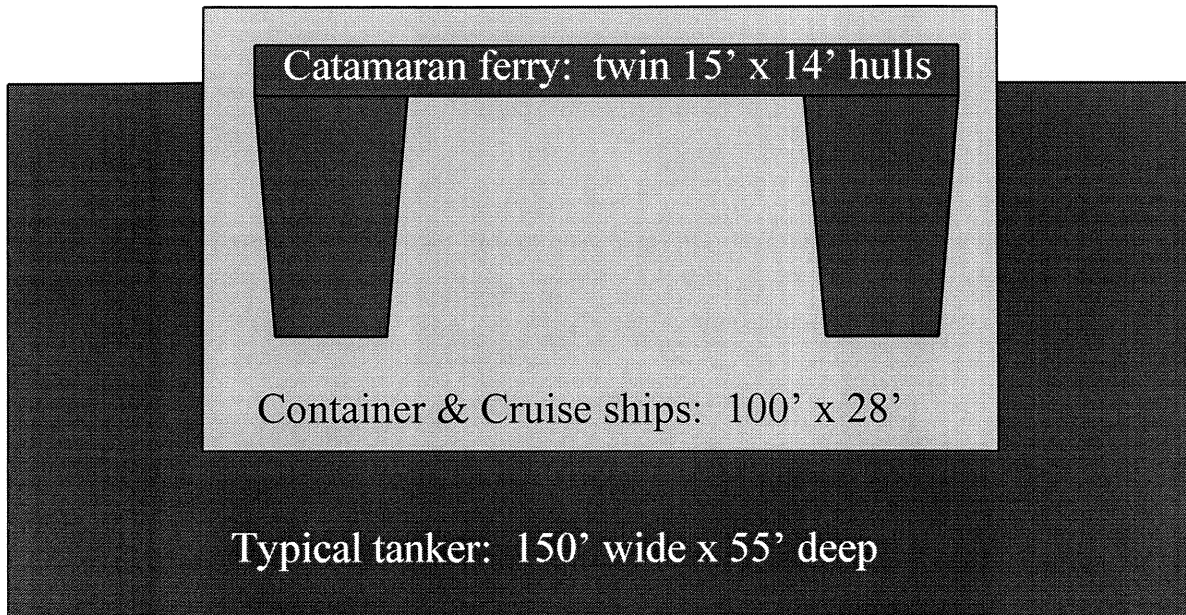


Fig. 3 Example of small cross-section vessel technology (green outline)

C. Vessels have no propellers thereby reducing a source of potential harm to whales by preventing lacerations.

D. Vessels are highly maneuverable with the ability to turn, slow, and stop quickly to avoid marine mammals and therefore reduce the chance of a strike.

### **3. Routing & operations during whale season**

A. Avoid whales - never approach under any circumstances.

B. Avoid waters less than 100 fathoms deep when possible. This includes routing North of Molokai on voyages between Honolulu and Kahului whenever possible and routing around Penguin Banks.

C. Operate at a maximum of 25 knots in waters of less than 100 fathoms.

**4. Watch staffing and observation equipment during whale season**

A. Recommended bridge team staffing

- a. Two active officers of the watch (not including engineering officers) should be on the bridge at all times.
- b. Two additional dedicated whale lookouts should be stationed on the bridge to alert watch officers with bearing and range of whale sightings and to assist in tracking efforts.
- c. All lookouts will be trained in whale distribution, behavior and detection.

B. Recommended observation equipment

- a. Visual observation equipment
- b. Image stabilized binoculars.
- c. Class 1 (eye-safe) laser range / bearing finders.
- d. Night vision systems and binoculars for operation at night.
- e. Digital video camera with at least 8:1 optical zoom lens.

C. Electronic observation equipment

- a. Forward-looking collision avoidance sonar. (When such systems become commercially available. )
- b. X-band radar has been shown to detect humpback whales (Mobley, DeProspo, Project Humpback, 2002) and should be employed and actively observed. Radar with automatic declutter, ATA and ARPA tracking aids are provided on all vessels.

**5. Night Operations during whale season**

- A. Navigation officers will utilize the night vision infrared system installed on the vessel.
- B. At least one of the designated whale lookouts shall utilize portable night vision equipment.

**6. Whale avoidance maneuver procedures**

- 1. Actively seek and identify whales along track line ahead of vessel.
- 2. Identify course and speed of whales and calculate CPA (Closest Point of Approach).
- 3. Identify tracks that may come within 500 meter CPA. Change course and/ or speed to maintain a minimum 500 meter CPA



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4. If a whale is sighted within 500 meters, maneuver (change course and or speed) until vessel is at least 500 meters away from whale.
5. If a whale appears suddenly in the path of the vessel, execute the appropriate emergency maneuvers to avoid the whales while considering all factors related to vessel and passenger safety.

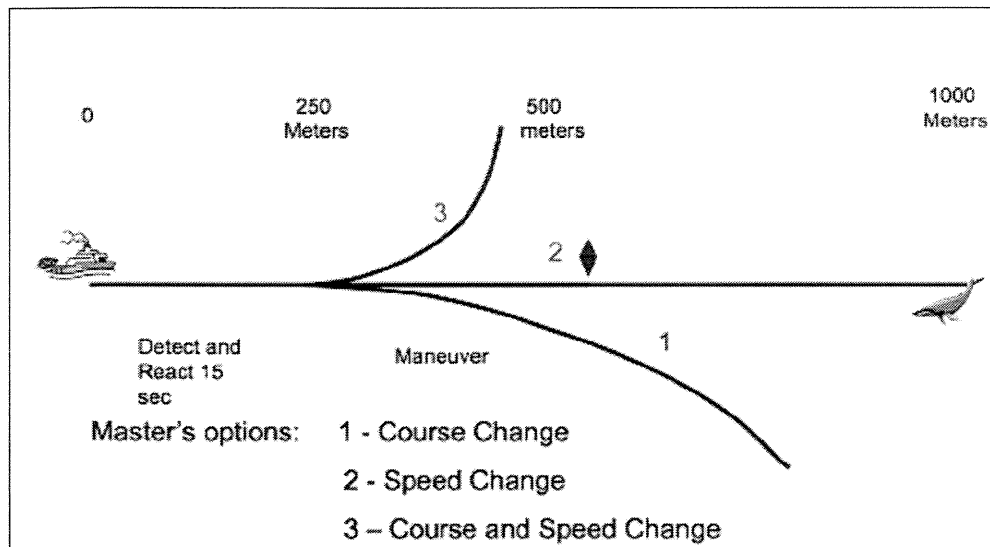


Fig. 4 Avoidance procedure options

## 7. Log keeping & whale encounter procedures

1. Any encounter in which the vessel is required to execute an emergency maneuver to avoid a whale or any instance in which the vessel approaches a whale closer than 100 yards shall be noted in the vessel's logbook and immediately reported to the Director of Marine Operations by the most expeditious method of communication.
2. If a whale is struck by the vessel additional reports should be made immediately. The master shall call National Marine Fisheries Service, US Coast Guard and the Hawaiian Islands Humpback Whale National Marine Sanctuary. The vessel is to remain in the area as long as practical and, if a still or video camera is available, try to photograph/video the injured animal.
3. A detailed written report is to be submitted to Director of Marine Operations within 24 hours of any such incident. The form of this report will be included in the company forms manual.